

EPITOME OF
HISTORY AND PRINCIPLES
OF EDUCATION

THOMAS J. M^cEVROY



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EPITOME OF
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OF
HISTORY *and* PRINCIPLES
of EDUCATION

BY

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PREFACE

The first edition of this book was a pioneer in the effort to organize the facts in the history of education. That effort found immediate justification in training schools, normal schools, universities, and especially home study by zealous men and women who could not take established courses in educational institutions. This second edition, revised and enlarged, embodies eight years more of experience, suggestions from many educators, the benefits of scholarly research by other authors, and the helpful contributions from various kinds of experiment to determine standards of effectual teaching. The book itself is an expression of gratitude to all who have aided in making a clearer presentation of history and principles of education.

THOMAS J. McEVoy.



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PART I

MEANING OF EDUCATION

PRIMITIVE EDUCATION

ORIENTAL EDUCATION

CHAPTER I

DEFINITIONS, IDEALS, VALUES

The Meaning of Education

1. The first step in any subject is to consider the meaning of the terms used. Epitome, history and education are familiar words, but their exact meaning should be given. An epitome is a summary of essentials. History is an authentic record of events. "Education," said Kant, "is the development in man of all the perfection which his nature permits." Other definitions of education put emphasis upon aim or content or method or result, but all of these should be included in one definition. Students will be able to make a satisfactory definition at the close of the course in the history of education, but it is economy of mental energy to make a foundation by becoming familiar with the broad definition formulated by President Butler of Columbia University.

In Butler's *The Meaning of Education* we find that education means a gradual adjustment to the spiritual possessions of the race. Those possessions are considered as inheritances and he mentions five kinds—scientific, literary, esthetic, institutional and religious. The scientific inheritance is found in geography, nature study, mathematics and physics; the literary inheritance includes all forms of literary composition and interpre-

DEFINITIONS, IDEALS, VALUES

tation; the esthetic inheritance is embodied in drawing, music and other kinds of art that may aid in forming a higher conception of life; the institutional inheritance is found in all kinds of civic training, including political geography, history, civics, and the subordinate forms of government represented in state and municipal organizations; and the religious inheritance includes those forms of training that are conducive to spiritual perfection.

The foregoing definition is eclectic because it embodies the best in the educative efforts of mankind. It says that each generation is entitled to enjoy the spiritual benefits of all prior civilization, i. e., the inheritances; and it requires that each generation shall in turn contribute to the larger inheritances as the development goes on. Thus education is self-realization or the training of every pupil so that he shall possess the power and the willingness to adapt himself to the needs of the time and the locality in which he lives. As a preparation for such activity in life, the pupil must become acquainted with the educational progress of other generations. An essential part of such training for efficiency is knowledge of the history of education.

Ideals in Education

2. The history of education presents a number of interesting ideals from western civilization. These can be used as related topics in discussing the meaning of education, as standards of testing the breadth of definitions of education, and as means of judging the development through the successive epochs. All these ideals

DEFINITIONS, IDEALS, VALUES

are included in the broad conception of the meaning of education according to modern views.

1. *Culture.* This term "refers to the comprehensive changes in individual and social life, due to the continued and systematic influences of mental improvement." It implies esthetic appreciation and refinement, and it is sometimes considered a synonym for civilization. The ideal in Athens, in later work of the Renaissance, and in many institutions today.
2. *Efficiency.* Power to do practical work is efficiency. The ideal in Rome.
3. *Discipline.* A training or fitting for future efficiency. The ideal in all medieval education, among the humanists, and with Locke.
4. *Knowledge.* The content of consciousness, the sum of acquired facts. The ideal of Bacon, Comenius and other Innovators.
5. *Development.* The process of directing all the possibilities of mankind to their highest usefulness. It is akin to self-realization. The ideal of Rousseau, Pestalozzi and Froebel.
6. *Character.* As an educational ideal, character means the right disposition of individuality resulting from harmonious development. The ideal of Herbart and his successors.
7. *Citizenship.* Character and efficiency in civic affairs; intellect, feelings and will acting under consciousness of social obligations. Sparta, Athens and Rome had initiation ceremonies that

DEFINITIONS, IDEALS, VALUES

exalted citizenship. Horace Mann and John Dewey are representative American advocates of this ideal in education.

Value of Study of History of Education

3. Knowledge. The learning of facts is considered an essential part of education. The facts in the history of education are worth knowing on account of general educative value and specific bearing upon preparation for teaching.

4. Guidance. We may avoid mistakes in teaching if we are familiar with the theory and the practice in the history of education. Guidance that enables us to avoid mistakes is economy of energy in striving for success. In other words, the experience of the race is a useful inheritance in promoting the welfare of mankind.

5. Judgment. The use of the memory in acquiring facts is only one helpful procedure in mental development. Judgment, the power to weigh and decide, is a related act of higher value. The student in history of education reflects upon the facts acquired, tests them according to the needs of the past and the present, and then makes a decision that is valid.

6. Ideals. The study of the development of theories leads to the psychology of education; the study of practice in teaching justifies accepted methods; the harmonization of theory and practice gives balance to all the subjects classified as pedagogy. History of education should, therefore, help formulate ideals that are clear, practical and inspiring.

DEFINITIONS, IDEALS, VALUES

Epochs

7. Simple division makes four general epochs convenient for study.

1. Oriental. From early historic periods to the Christian era, or to the present. China, India, Phenicia, Persia, Egypt, the Jews.
2. Classical. Greece and Rome. Overlaps Christian period.
3. Medieval. 529 to 1500 A. D. To Renaissance.
4. Modern. 1500 to the present.

8. The epochs are outlined here to indicate the topical treatment shown in the chapters.

Outline of Epochs

I. Oriental Education. Recapitulation.

1. China
2. India
3. Phenicia
4. Persia
5. Egypt
6. The Israelites or Jews

II. Classical Education. 600 B. C. to 476 A. D.

1. Greece, Athens and Sparta
2. Rome

III. Medieval Education. The Christian era to 1500.

1. The Great Teacher.
2. The Christian Fathers. First five centuries.
3. The Monks. Sixth century.

DEFINITIONS, IDEALS, VALUES

4. Period of Charlemagne. 800 to 900.
5. Period of Supremacy of Feudalism. 900 to 1200.
6. Period of Universities and Scholasticism. 1200 to 1500.

IV. Modern Education. 1500 to present.

1. Sixteenth century. Renaissance, realism.
2. Seventeenth century. Innovators.
3. Eighteenth century. Naturalism.
4. Nineteenth century. Naturalism, science.
5. Twentieth century. Eclectic tendency, i. e., combining the best.

CHAPTER II

EDUCATION IN PRIMITIVE SOCIETY

9. Education through experience.

The writers who speak of education as evolution find it necessary to trace the process to the primitive societies of savages and barbarians. It is possible to find among those people evidence of the educative process in their adaptation to environment through the use of experience of earlier generations.

As in all child life, the early training was through play and unconscious imitation. Then came conscious imitation in learning to produce the necessities of life, such as food, clothing and shelter. In all of those acts the group instinct of helpfulness was effective in developing customs, but there was no organized effort in education. Boys and girls were creatures of custom, and their responsive development did not go far beyond the limits of tribal experience. Initiation ceremonies and other related experiences appealed to the feelings and the will, and opened the way to the virtues having theoretical and practical value. Thus the developing institutions became the embodiment of customs and ideals.

10. Institutions in primitive society.

The dominant characteristic of primitive peoples is called animism. This name is associated with the belief

EDUCATION IN PRIMITIVE SOCIETY

that every life has a companion spirit or *double* in trees, rocks, animals and other things. This close companionship with environment directed the course of daily life, gave content to intellectual and spiritual beliefs, and made a foundation for natural religion, early philosophy and rudimentary science.

The scope of animism offered opportunity to those whose fitness enabled them to deal satisfactorily with the spirits. The favored ones became the wizards, shamans or medicine men. They were the earliest teachers, and their work gave form to written language, determined the subject-matter for study, and directed the method of instruction. Under this development, the priests were the first teachers. As their office was religious in its nature, instruction in common things of life devolved upon the home. Later development produced the school as soon as the priests found it necessary to organize special instruction for candidates for the priesthood.

Thus, primitive peoples exemplified certain tendencies which are considered essential elements in organized education. The instincts of play, imitation, constructiveness and fellowship were utilized in converting experience into customs which embodied ideals that dominated the development of institutions.

CHAPTER III

CHINA—ANCESTRAL EDUCATION

Ancient oriental education is spoken of as recapitulation because it summarizes the history of those eastern nations. China may be taken as a type that embodies the characteristics of early civilization. Among those characteristics are (*a*) independent national existence on account of tendency toward isolation; (*b*) government by rulers with authority sanctioned by tradition or divine right; (*c*) adherence to the fixed ways of the past or to the dominating ideas of ancestors; (*d*) acceptance of a caste system; and (*e*) worth of the individual not recognized.

11. Aim of education in China.

To prepare for success in life. This aim was definite because no one could go beyond the rigid standards of social organization. Success was the attainment of the best under the fixed rules governing home, school, state and vocation. In all this, the ideal, moral and intellectual, rested upon the past, and success was estimated in measures of exact imitation.

12. General characteristics and means.

1. Moral; in school, literary.
2. Based upon Confucianism, supplemented by Buddhism and Taoism.

CHINA—ANCESTRAL EDUCATION

Confucius (550-478 B. C.) was a philosopher whose ethical code and personal influence secured an enthusiastic following, although he neither remodeled the old religion nor taught a new theology. The old religion embraced worship of ancestors, deified rulers and spirits; vague ideas of future life; no system of rewards and punishments; there were offerings but never human sacrifices. The influence of Confucius was a revival of religious fervor under the idea of the golden rule. His writings embodied the wisdom of twenty centuries and gave to the Chinese "the loftiest moral code which the human mind unaided by divine revelation has ever produced."

3. Sacred texts: *The Four Books* and *The Five Classics*, partly by Confucius (550—478 B. C.), partly by his disciple Mencius (372—289 B. C.), and partly by later disciples.

The Four Books

1. Analects of Confucius
2. Great Learning
3. Doctrine of the Mean
4. Mencius

The Five Classics

1. Spring and Autumn
2. Books of Poetry
3. Books of History
4. Books of Rites
5. Books of Changes

4. All ethical and social duties included in five relations: sovereign and subject, parent and child, husband and wife, brother and brother, friend and friend.

13. Sayings of Confucius.

1. "What you do not want done to yourself, do not do to others."
2. "Learning without thought is labor lost. Thought without learning is perilous."
3. "To see what is right and not to do it is want of courage."
4. "Shall I tell you what knowledge is? When you know a thing, to hold that you know it; and when you do not know a thing, to confess your ignorance."
5. "Worship as if the Deity were present."

14. The home.

1. The family is the unit of social organization.
2. Wife is servant to husband.
3. Filial obedience includes all duties.
4. Disobedience punishable by death.
5. Virtues: politeness and obedience.

15. Elementary education.

1. Child entered school at six or seven. Studied literary language which differs from spoken language. Reading and writing taught; memorizing four primers: *The Three Character Classic*, *The Thousand Character Classic*, *The Hundred Surnames*, *The Rules of Behavior*. School name

given to child and then he studied The Four Books and the Five Classics mentioned in section 12.

2. No license to teach. Many of the teachers were students who failed in higher examinations. No state control; no public school houses; school days long and continue nearly all the year.
3. Every village had a school and there were some charity schools.
4. Three stages: memorizing, translation, composition of essays.
5. No alphabet; symbol for every idea, not for sounds; mastery of five thousand or more different characters.
6. Maxims for morality.

16. Higher education.

1. Indefinite in time; depends upon passing. A system of examinations, not of schools.
2. No school houses; individual instruction for success in examinations was the method.
3. The aim of the school work was success in examinations. Development of literary style was the chief merit.

The administration of education was in charge of the Hanlin or Imperial Academy, which was organized in seventh century. The members in four groups: (*a*) Emperor's cabinet; (*b*) in charge of public records; (*c*) history of reigns; (*d*) examinations.

4. Some modern high school instruction. See 18.
5. Examinations for degrees.

a. Budding Intellect.

CHINA—ANCESTRAL EDUCATION

- b. Deserving of Promotion.
- c. Fit for Office.
- d. Forest of Pencils. For Royal Academy only.

17. Method of Chinese education.

- 1. Exact imitation.
- 2. In lower stages purely a training of the memory.
- 3. Pupils study passages aloud.
- 4. Individual recitation.
- 5. Rapid repetition the aim of the pupil.
- 6. Use of tracing in primary writing.

18. Criticism.

- 1. Memory strengthened.
- 2. Chinese stability, as desired by China, secured.
- 3. Discipline in mastery of form without knowing content.
- 4. The content of their literary education had no practical relation to daily life.
- 5. It made no use of interest as a stimulus.
- 6. Women not educated.
- 7. Not national, universal, compulsory.

Modern Education

China must be given credit for many changes in her school system. Western ideas are adopted for types of normal schools, high schools, colleges and universities; and the reforms will be extended to all elementary education as soon as adjustment can be made. One notable advance is the opening of schools for girls. Many American teachers are employed in the various institutions. In 1910 English was made the official language in scientific and technical schools.

CHAPTER IV

INDIA OR HINDUSTAN

A caste system that is the outgrowth of physical, racial and religious conditions. Castes are classes of society made permanent by custom and law. The castes of India were formed in the struggle between the Aryans and the native Hindus. The Aryans, an agricultural people on the steppes of southern Russia, had herds, crops, homes and rudimentary civic associations; they revered the gods supposed to control weather and seasons—sky, moon, wind, fire, etc.; and they had both desire and capacity for intellectual advancement. They were the progressive people who overran nearly all of Europe and much of Asia. Their struggle with the native Hindus and the environment in India produced the castes and the modified ideals in Hindu education.

19. Aim of Hindu education.

To prepare for future life.

20. Castes.

1. Brahmins: priests, lawyers, physicians, teachers.
2. Warriors and rulers.
3. Merchants, mechanics, farmers.
4. Sudras or servants. No education.

INDIA OR HINDUSTAN

21. Home.

1. Woman uneducated; not equal to husband.
2. Marriage in same or lower castes.
3. Reverence for parents and teachers.

22. Elementary education.

1. A state system supported by government. Teachers from the Brahman caste.
2. In open air or in tents or sheds. Monitors assist in teaching.
3. Method is rote learning, or memory training, as in China.
4. Studies. Reading, writing, arithmetic, language, religious and caste ceremonials.
 - a. Writing on sand with a stick, on palm leaves with a stylus, and on plane leaves with ink.
 - b. Elementary arithmetic: memorizing tables. Repetition by singing.
 - c. Memorizing Veda in Sanskrit. The Veda constituted the four collections of the sacred writings of the Brahmans. The time of composition was probably between 1500 and 1000 B. C.
5. Religious exercises, hymns and prayers, three times a day.
6. Discipline mild; corporal punishment in extreme cases.

23. Higher education.

For Brahmans and some warriors and farmers.
grammar
literature

INDIA OR HINDUSTAN

law
astronomy
mathematics
medicine
philosophy
religion

24. Aim of Hindu wisdom is to overcome suffering through knowledge. See 27 and 28.

25. Contributions.

Decimal system; philosophical and mathematical discoveries. Kemp's *History of Education*, page 29, gives a favorable summary.

"The scholarly achievements of the Hindus in their enervating climate attest the philosophic character, the keenness, and native energy of the Hindu mind. They seem to have anticipated by nearly two hundred years some of the best features of Aristotle's logic. More than four centuries before Christ they had a comprehensive grammar of their language. Quite early they computed eclipses and places of planets by means of tables. In the third or fourth century of the Christian era they had excellent treatises on rhetoric. In the fifth century A. D. they had an algebra superior to that of the Greeks. Whether they received help from the Greek algebra is not known. They were able to solve equations having two unknown quantities, and had methods for the resolution of indeterminate problems of the first and second degree. They applied algebra to astronomical investigations. The Arabic system of notation, which has been such an inestimable boon to the Western na-

tions, appears in their literature of the fifth century as an old thing. In fact, the Arabs got it, as well as much of the algebra they taught to the West, from our Aryan kinfolk in India.”

26. Criticism.

Humane discipline; contributions to methods of teaching, mathematics and philosophy. See section 25.

Rigid caste system prevented flexibility, neglected women and servants, and disregarded the worth of man as an individual. Too much use of memory without thought.

27. Brahmanism and Buddhism.

The Brahmins were the scholars of the Hindus. They were the priests who composed the Veda, which forms the basis of all Hindu education and literature. In the changing ideals of the periods, the Veda shows the trend of thought. The early religion was nature worship of fire, wind, sky, etc. Then came polytheism, the belief in many gods. Later came pantheism, the belief that all forms of existence came from one source and will return to it. All individual existence is pain or sorrow; hence, the desire to merge self in Brahma, the perfect being from which all things emanated. It is obvious that the doctrine of effort to develop individuality is contrary to the underlying aim of Brahmanism.

Buddhism, a sort of reformed Brahmanism, dates from about 500 B. C. Buddha (the knower, the enlightened one, the awakened) is not the name of one person, but a name signifying a person who has achieved a certain spiritual and intellectual state by means of the

INDIA OR HINDUSTAN

eightfold path described in the next paragraph. Prince Siddartha was the founder and he is known as the Buddha.

The fundamental law of Buddhism is expressed in the Four Verities or Noble Truths: (1) Suffering exists wherever sentient being exists. (2) Cause of suffering is a desire, a craving for pleasure or for existence. (3) Deliverance from suffering can be effected only by the extinction of desire. This is Nirvana. (4) This cessation and entrance into Nirvana can be attained only by walking in the Path of Buddha, or the Noble Eightfold Path. This comprises right views (as to the nature and cause of suffering); right thoughts; right words; right actions; right means of livelihood, i. e., as a mendicant monk, living in celibacy and on offered alms; right application of the spirit to the study of the law; right memory, or freedom from error in recollecting the law; and right meditation.

Primitive Buddhism was atheistic. Gods and all earthly things were subject to decay, death and rebirth. Hence, sacrifice, worship and priesthood were unnecessary. Later, deities were introduced. The existence of soul was denied. Man was considered a combination of material qualities, sensations, abstract ideas, tendencies of mind, and mental powers. These break up at death, but there remains a force, Karma, which tends to form a new personality representing the cumulative merit or demerit of thoughts, words and acts in life.

28. Results, social and individual.

Passive virtues were inculcated, such as politeness, patience, modesty, truthfulness and obedience.

INDIA OR HINDUSTAN

The education was ethical and ascetic. In the tendency toward self-discipline, some virtues were developed, but those virtues were not such as modern life demands. As both Buddhism and Brahmanism were "systems of organized weariness," India could not rise to the civic grade of culture and social efficiency.

CHAPTER V

PHENICIA—COMMERCIAL EDUCATION

29. Location.

Phenicia is the Greek name of Canaan. The country of the Phenicians was a strip of land five to fourteen miles wide and one hundred fifty miles long. Its proximity to the Mediterranean Sea favored commercial development and education was conditioned by the phases of industrial life.

30. Aim.

To secure commercial success by manufacturing and commerce.

31. Customs and methods.

1. Religion included worship of gods of fire and forces of nature. Sacrifice of children by fire.
2. Boys apprenticed for vocational training. This and other efforts for commercial efficiency weakened influence of home and caused disregard of parents.
3. Extent of education limited to reading, writing, arithmetic and technical knowledge of trade secrets.

32. Results.

1. Sea life made men strong, courageous and ambitious.
2. Remarkable development of the cities of Sidon (1300 B. C.) and Tyre (1000 B. C.) ; colonization of Cyprus, Rhodes, Sicily and other islands ; commerce by sea and land to Africa, Europe, Arabia, Assyria, Armenia and other countries ; invention and development of processes of manufacture.
3. Government of cities by hereditary monarchy checked by two republican assemblies.
4. National security not permanent without family as unit.

33. Contributions.

1. Alphabet dating from about 1000 B. C. It had twenty-two letters, all consonants. The writing was from right to left.
2. Purple dye, weaving, glass-making, mining, work in metals, architecture.
3. The science of navigation.
4. The value of intercourse in disseminating ideas and material products.

CHAPTER VI

PERSIA—STATE EDUCATION

34. Aim.

To serve the state. Military service.

35. Home.

1. Father demanded respect from wife and children.
2. Teacher next to father in esteem.
3. Mother beloved by children; women uneducated.
4. Child at home until 7.
 - a. Name given by astrologer.
 - b. No corporal punishment.
 - c. Physical training in running, throwing, archery, riding, etc.
 - d. Truthfulness, justice, courage developed.

36. State education.

National control of boys after seventh year.

1. First period. 7-15.
 - a. Physical training continued.
 - b. Moral training by proverbs, prayers.
 - c. Teachers were men over 50 years old; models in virtue and knowledge.
2. Second period. 15-25.

Military training.

PERSIA—STATE EDUCATION

3. Third period. 25-50.
 - a. Soldier.
 - b. Competent retired soldiers became teachers.
4. Studies.
 - a. Reading and writing for soldiers.
 - b. Astronomy, astrology, alchemy, sacred literature for priests, called Magi. Their sacred writings called Zend-Avesta.

37. Criticism.

1. Made moral and physical soldiers.
2. Intellectual education neglected.
3. Women excluded.

38. Zoroaster, philosopher.

1. Dualistic philosophy. One supreme God, Ormuzd, the principle of light, the good; one evil one, Ahriman, the principle of darkness.
2. Life is a struggle in which good prevails.
3. Judgment.
 - a. The good pass over a bridge to happiness.
 - b. The bad are cast off.
 - c. The average person put on probation.
4. Highest ethical value among ancients, excepting the Jews.

CHAPTER VII

EGYPT—PRIESTLY EDUCATION

39. Aim.

To maintain supremacy of priests.

40. Castes.

Not so strict as in India.

1. Priests, rulers, land owners, wealthy class, higher professions.
2. Soldiers. Associated with priests for protection.
3. Producers.
 - a.* Farmers and boatmen.
 - b.* Mechanics and tradespeople.
 - c.* Common laborers, fishermen, herdsmen.

41. Home.

1. Woman, mistress of home; some education, taught children; polygamy, except for priests.
2. Religion, piety, obedience, love.
3. Physical education; simple food, light clothing.

42. Organization, content and method.

1. Education suited to respective castes, but no system controlled by state.
2. Priests were teachers. Many other teachers of elementary subjects. Reverence for teachers.

EGYPT—PRIESTLY EDUCATION

3. Elementary period opened at fifth year in temple courts. Reading, writing, arithmetic, and some geometry and astronomy. Religious training for all. Girls received some training in private schools and under private tutors. Method included imitation, memorizing, learning numbers by play, writing with stylus on wood and with ink on papyrus.
4. Higher education for priests and soldiers.
 - engineering
 - language
 - natural science
 - astronomy
 - mathematics
 - medicine
 - philosophy
 - religion
 - music
5. Colleges were in the temples. Leading colleges were Memphis, Thebes, Heliopolis.

43. Contributions.

1. Use of papyrus for writing.
2. Originated geometry. Why?
3. Concrete methods in arithmetic and writing.
4. Evidences of proficiency in engineering, mechanics, architecture, decoration, painting, sculpture; in manufacturing glass and jewelry; in spinning and weaving.
5. Literature: moral and religious works, poems, novels, letters, books of travel. The *Book of the Dead* contains texts, prayers and incantations to

EGYPT—PRIESTLY EDUCATION

help the soul on its way to the court of Osiris. The library of Alexandria had many writings on various subjects.

44. Criticisms and results.

1. Equality destroyed by castes.
2. Increasing respect for women.
3. Vast achievements without hereditary value as culture products in civilization. Compare Butler's definition of education.

CHAPTER VIII

THE JEWS—THEOCRATIC EDUCATION

45. Location.

Egypt, Babylon and Palestine are associated with the Jews, Hebrews or Israelites. Jerusalem a historic city. Three periods are embraced in the history of their education. The first is to the coronation of Saul, 1055 B. C.; the second, to the beginning of Babylonian captivity, 586 B. C.; the third, to the fall of Jerusalem, 70 A. D.

46. Aim.

To rehabilitate the nation.

47. The home.

1. Purest of antiquity.
2. Wife equal to husband.
3. Children considered as the gift of God.

48. Education at home.

1. Boys, reading and writing.
2. Girls, household duties and some education.
3. Rites and ceremonies; Scripture.
4. History as a means of patriotism.
5. Religion, central thought.
6. Home training best of all nations.

49. The Jewish school.

1. 64 A. D., first compulsory education.
2. Every town must support a school.
3. Teachers were mature married men. 25 pupils to a teacher.
4. The teacher was greater than the parent because the future is greater than the present.
5. Methods of teaching were good. Dialectic or conversational method and learning by rote. Multiple sense appeal, i. e., making use of as many senses as possible, was utilized. Pupils sang or chanted their lessons. Clearness in presentation and drill made the pupils understand. Mild discipline; no corporal punishment until after eleven.
6. Sayings from the Talmud.
 - “The world exists only by the breath of school children.”
 - “A town without a school and school children should be demolished.”
 - “Jerusalem was destroyed because there ceased to be schools and school children there.”
 - “The pupils’ questions should never become too much for the teacher.”
7. Studies.
 - reading
 - writing
 - arithmetic
 - geometry
 - astronomy
 - natural history
 - Scripture

50. The schools of the rabbis.

1. At Alexandria, Babylon, Jerusalem.
2. Theology and law.
3. The Talmud is a compilation of the Jewish traditions as distinguished from the original Scriptures. It embraces the Mishna, the original traditions ascribed to Moses, and the Gemmara, commentaries of the rabbis. Compiled second to sixth centuries A. D.

51. The schools of the prophets.

Philosophy, poetry, medicine, history and law for sons of prophets, priests and other leaders.

52. Criticism and results.

1. Exalted woman and home; organized schools; developed progressive, united people.
2. Obedience, patriotism, religion. See 49.
3. Produced some of the world's greatest poets and historians.

CHAPTER IX

SUMMARY OF ORIENTAL EDUCATION

53. Class distinctions.

Lower classes were deprived of advantages. The recognition of the caste system removed all stimulus excepting the attainment of ideals which seemed to be adequate under the respective social organizations.

54. Progressiveness.

The national ideals were not conducive to free development, as already shown in the preceding paragraph. Traditions and authority of teachers took the place of investigation and experiment.

55. Position of individuals.

Man belonged to the state. Individual worth was estimated in relation to the mass, not in terms of self. Service was the law of value, but not the service that embraces the reciprocal rights of the individual and society. Politeness, obedience and good conduct were developed as passive virtues. Memory was made the dominant intellectual power by acquiring moral precepts as guides to conduct. Woman was held inferior to man and, as in the lower castes, she was deprived of the advantages of education.

SUMMARY OF ORIENTAL EDUCATION

56. Content of matter of instruction.

The elements of subject-matter in modern curricula can be traced to various early efforts in education. Some of the Eastern nations made creditable advance in getting definite arrangement of subjects, but in no case can balanced organization be found.

57. Method of instruction.

Imitation and memory through repetition in all the nations. Play as an educative instinct is evident in India and Egypt. Concrete methods associated with play may be traced from the periods of barbarism and found in frequent use in China, India and Egypt. Appeal to many senses and rudimentary motor expression are made a part of conscious effort in India, Egypt and Israel.

PART II

CLASSICAL EDUCATION
SPARTA, ATHENS, ROME

CHAPTER X

GREECE

Culture is the aim associated with Grecian education. This aim implies liberal training. The basis of liberal education is found in the social organization of the Greeks. The race was tribal, not national. The Spartans were Dorians, people who were types of strong, practical soldiers. The Athenians were Ionians, people who were characterized by literary, artistic and philosophical inclinations. Two other divisions were The Æolians of Thebes and the Achæans. In religion the Greeks believed in polytheism, the gods being considered as personalities. Their ceremonials included oracles, mysteries, prayers, libations, games and festivals. The civic organization was a type of the city-state, i. e., the larger problems usually associated with states were dealt with in relation to cities, as in Sparta and Athens.

58. Progressive features.

1. Recognition of individuality.
2. Recognition of the state.
3. Mutual welfare of individuals and the state.
4. Education as development meant progressive adjustment.
 - a. Political freedom.
 - b. Moral freedom.

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- c. Intellectual freedom. Love of knowledge for the sake of knowledge.
- d. Esthetic idealization, appreciation and realization. Exemplified in art, literature, oratory, history, architecture and personal appearance.
- e. Effort toward self-realization. Christian ideal lacking. Grecian ideal found in "the true, the beautiful and the good."

59. Great men.

- 1. Homer. Iliad and Odyssey about 850 B. C.
- 2. Lycurgus. Laws for Sparta, 850 or 800 B. C. See 62.
- 3. Solon. Laws for Athens, 594. Parental duty in education.
- 4. Pythagoras. See 87.
- 5. Fifth to third century B. C. Pericles, ruler in the Golden Age of Greece; Herodotus, historian; Xenophon, writer; Demosthenes, orator; Socrates, Plato, Aristotle, Alexander the Great.
- 6. Euclid systematized geometry about 250 B. C. Probably founded mathematical school at Alexandria. "There is no royal road to geometry."
- 7. Strabo (first century B. C.?). Educated at Athens, Rome and Alexandria. Compiled geographical knowledge into his Geography, a treatise in seventeen books.
- 8. Ptolemy (second century A. D.), astronomer, geometer, geographer. Developed trigonometry and put geography upon a scientific basis. Ptolemaic theory: (1) The earth is a globe. (2) This

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globe is at rest in the center of the world. (3)
The heaven or world makes a daily revolution
round an axis which passes through the center of
the earth.

CHAPTER XI

OLD GREEK EDUCATION, TO AGE OF PERICLES, 459 TO 431 B. C.

I. Homeric Period (1000 to 776 B. C.)

60. Ideals.

The poems by Homer are the sources of information for this period. The Iliad and the Odyssey are the Greek masterpieces that embody the ideals and the practises. The ideal was twofold—the man of action and the man of wisdom.

1. Achilles was the type of action: bravery, reverence, balance by avoiding extremes.
2. Odysseus was the type of wisdom: practical judgment, harmonious balance in thought.
3. Virtue or worth of citizen was tested by worth to the state.
4. Content of education included physical training in military exercises for physical development; music, ethics, rhetoric and religion for intellectual and moral development.

There were neither books nor schools, but there were tutors. Learning by doing was the method. Ideal and real persons were examples that stimulated imitation in developing the virtues of bravery, truthfulness, kindness, loyalty, chastity and prudence.

OLD GREEK EDUCATION, TO AGE OF PERICLES

6. Patriarchal monarchy was the form of government in the heroic period. Then followed a republican constitution at first aristocratic, but later democratic. The democracy of antiquity was one in which the majority of citizens ruled, not the majority of inhabitants. In most of the Greek States, the majority of the population consisted of slaves.

II. Spartan Education (776 to 480 B. C.)

61. The Homeric period is sometimes called the legendary period to distinguish it from the historic period which opened 776 B. C. Spartan education was influenced by natural and social environment. Tribal organization insufficient for defense when Lysurgus undertook to organize the laws.

62. Lysurgus. (820 B. C.)

In the ninth century B. C. Lysurgus divided the people into the three classes given in 63, organized and enforced laws which made the Spartan institutions.

The government was an aristocratic republic for the first class alone. There were two kings, a council of 28 elders, the popular assembly, and 5 ephors or inspectors.

Illustrations of Laws of Lysurgus

1. Eating in common, fifteen men at table.
2. Children silent at tables: manners, wisdom; simple food.

OLD GREEK EDUCATION, TO AGE OF PERICLES

3. Iron money.
4. State controlled marriage, owned children.

63. Three classes of people.

1. Citizens or rulers. Nobles divided into 9000 families. Hereditary landed estate assigned to every family which had lost possessions.
2. Free men, farmers, miners and others. They paid dues to owners of property, were bound to military service, and had no political rights.
3. Slaves, known as helots or prisoners. They were divided by lot among the first class, tilled the lands, and paid their lords a fixed portion of the harvest.

64. Home.

1. Weak children killed or abandoned.
2. Children with mother till six or seven; warlike toys; father or mentor was the teacher.
3. Obedience, modesty, courage, patriotism.

65. State education.

1. Boys in barracks at state expense.
2. Boys in group under monitors, called irens.
3. Distinguished boys trained by elders.
4. Inspector over all groups.
5. Girls received some training, often with boys' groups until the girls were fourteen years old.
6. Music on the lyre; chanting Homer, laws of Lycurgus, and war songs; reading and writing not favored.
7. Evil of crime is in being detected.

OLD GREEK EDUCATION, TO AGE OF PERICLES

8. At twelve, boy took mantle of manhood.
9. At eighteen, the boy entered the class of ephebes, or cadets. Strict military training.
10. From twenty to thirty, the boys were known as youths. Separate barracks, constant physical and military training. Actual experience in war.
11. At thirty, full citizenship. Marriage, home founded, state service continued.

66. Content of Spartan education.

1. Physical training to produce warriors. Running, jumping, riding, swimming, hunting, playing ball; boxing, wrestling, throwing discus and javelin, military evolutions; dancing accompanied by muscular movements similar to actions in battle.
2. Reading and writing not taught in barracks, but tutors were sometimes employed at private expense.
3. Memory exercises for singing or chanting to develop warlike spirit.
4. Conversational topics at tables to develop good manners, attention, readiness to participate, clear judgment and incisive speech. Terse answers gave rise to the word laconic, from Laconia, the Spartan division of Greece.

67. Method of Spartan education.

1. Imitation and play in organized games.
2. Definite ideals inculcated by rhythmical appeal in dancing and chanting.
3. Practical doing under critical supervision. Physical punishment for defects, faults and failures. The hardening process carried to extremes.

OLD GREEK EDUCATION, TO AGE OF PERICLES

68. Criticism or results.

1. Robbed the home; produced courageous but cruel and selfish men.
2. Narrow. Duty to humanity not inculcated.
3. Checked luxury and extravagance.
4. Woman honored; educated for good motherhood.
5. Illustration of mode and value of organization in education. The ideal was definite—courageous defenders of the state; the process was clearly arranged—some theory, much practice; a superintendent of education—the pedonomus; monitors or leaders in teaching—the irens; 20 to 30, vocational training as soldier; at 30, manhood representing the cumulative effect of education for service in citizenship.

III. Old Athenian Education

69. Sparta and Athens contrasted.

Sparta was a kind of military socialism; Athens was favorable to the development of democracy. Sparta exemplified the military ideal; Athens developed the arts of peace as well as the arts of war. Sparta destroyed the family as a unit of organization; Athens made the family a responsible factor in civic life. Sparta did not recognize individuality apart from state; Athens did recognize the value of full development of the individual.

70. Materials for culture.

The Hellenes, or old Greeks, had two valuable inheritances as bases for intellectual advancement. Those inheritances were a phonetic alphabet containing both

OLD GREEK EDUCATION, TO AGE OF PERICLES

vowels and consonants and the poems of Homer. The use of the materials necessitated the formation of schools and the securing of laymen as teachers.

71. The beginnings of a course of study.

The Greek ideal of education embodied the aim of individual excellence or worth closely associated with public welfare. That civic or social ideal required perfection of the body in strength and beauty, and perfection of the mind or soul through knowledge to wisdom. Hence, the education was planned under the two divisions of gymnastics for the body and music for the soul.

72. Responsibility of family in the organization.

Neglect of child's education thereby released the child from the father's control, according to the laws of Solon. All schools private; state required music and gymnastics and controlled the exercises in the gymnasia.

73. Home.

1. Father had right to destroy or abandon children.
2. Use of games in education.
3. Children in charge of nurse or slaves.
4. Elementary school, 7-16. Gymnastics and music.
Pedagogue in charge of boy.

74. Gymnasia, 16-18. State education.

1. Public schools for wealthy classes, as in Plato's Academy.
2. Training by conversation with elders. Attendance and conversation at banquets, theaters, the law courts, etc.

75. **Ephebes, 18-20.**

1. Enrolled as citizen under oath.
2. Barrack or camp for first year; regular soldier the second year.
3. Following is the oath taken by boys when they were admitted to the army:

“We shall never bring disgrace to this, our city, by any act of dishonesty or cowardice, nor ever desert our suffering comrades in the ranks. We will fight for the ideals and sacred things of the city, both alone and with many. We will revere and obey the city’s laws and do our best to incite a like respect and reverence in those above us who are prone to annul or to set them at naught. We will strive unceasingly to quicken the public’s sense of civic duty. Thus, in all these ways, we will transmit this city not only not less, but greater, better, and more beautiful than it was transmitted to us.”

76. **Content of old Greek education.**

1. Gymnastics. More than half the time given to physical training. Games in organized course of study for pentathlon, which included jumping, running, throwing the discus, throwing the spear and wrestling; swimming and hunting added later.
2. Music. This included poetry, the drama, history, oratory, the sciences, music in the limited sense and all other activities presided over by the nine Muses. After memorizing Homeric poems the boy chanted them to the accompaniment of the lyre. Hence music included the processes of de-

OLD GREEK EDUCATION, TO AGE OF PERICLES

veloping creative power,—power of expression, of initiative and of appreciation.

3. Reading, writing, and the literary element of education were included in music. The Iliad and the Odyssey furnished material for reading.
4. Arithmetic and drawing were not introduced until later.
5. “Dancing was a rhythmical movement of the whole body for the purpose of harmonizing physical development. Dancing was the union of the harmony of thought and emotional experience expressed through music and the harmony of physical development produced through gymnastics.”

CHAPTER XII

NEW GREEK EDUCATION AT ATHENS (480-338 B. C.)

The Age of Pericles, 465-429 B. C.

77. Spirit of liberty.

Democracy after battle of Marathon, 490 B. C.

78. Aim.

Harmonious education of the whole man; culture.

79. Home.

1. Child with mother till 6 or 7.
2. Toys: play a factor in education; mental, physical.
3. Intellectual training, poetry, strict obedience; humane discipline.
4. Father or mentor trained boy.
5. Mother was the equal of the children.

80. Elementary, 7-15.

1. Palestra, school for gymnastics.
2. Didaskaleion, school for music.
3. Pedagogue, attendant for boy outside of school.
4. Studies.
 - a. Gymnastics: wrestling, running, etc. See 76.
 - b. Music: reading, writing, spelling. See 76.
 - c. Some arithmetic for utility.

NEW GREEK EDUCATION AT ATHENS

5. Long school days.
6. Trade for poor boys at 14 or 15.

81. **Advanced.**

(After middle of fourth century B. C.)

grammar
rhetoric
poetry
elocution
mathematics
music
philosophy

82. **Gymnasia.**

At about 15, boys were freed from pedagogue. They entered gymnasia for special training for citizenship.

83. **Ephebes.**

At 18 the boy began active service in citizenship. See 75.

84. **Organization.**

1. State furnished gymnasia, such as Academy and Lyceum.
2. State fixed qualifications of teachers, school hours, number of pupils.
3. State gave examinations once a year.
4. Schools were private institutions under state inspection.
5. Teachers were philosophers; excellent; fees from parents, but no salaries.

85. Criticism.

1. Rights of parents exalted.
2. Freedom of individual.
3. Play as education.
4. Harmonious education.
5. State inspection.
6. Women and slaves excluded.

CHAPTER XIII

EARLY PHILOSOPHERS AND THE SOPHISTS

86. Early philosophers.

From 7th to 5th centuries B. C., philosophers taught in different parts of Greece. They sought the origin of things and thus made a beginning of scientific and philosophic activity. Astronomy and mathematics benefited thereby.

Thales, the first philosopher of Greece, was of Phœnician descent. He was a contemporary of Cræsus and Solon and was one of the Seven Wise Men. He was the founder of Greek geometry, astronomy and philosophy. He learned the geometry of surfaces in Egypt, added the geometry of lines, and applied geometry to the measurement of heights and distances. He introduced algebra in this connection.

87. Pythagoras (582-500 B. C.)

Born on the island of Samos, a pupil of Thales, a student in Egypt, a traveler in other countries. He founded a school at Crotona, in southern Italy. His school was a brotherhood formed for ethical and religious purposes, governed by a set of rules similar to the monastic regulations of later times, and destined to promote power by meditation, reflection and order in adjustment. His aim was to produce harmony and proportion in life.

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The Pythagorean theory is that number is the essence and basis of all things. "All is number." The regularity and harmony of changes in nature led to this conclusion. In applying the principle of number, odd and even were considered the elements of number, odd being definite and the other indefinite, while the unit is the product of both. From this dualism or twofold nature of the unit, the doctrine of harmony in opposites is worked out, as finite and infinite, left and right, odd and even, male and female, etc.

The application of this doctrine of number by Pythagoras and the Pythagoreans.

1. *Physics*. Bodies were analyzed into surfaces, surfaces into lines, lines into points. Every body expresses the number four; surface is three, the line is two on account of its two ends, and the point is one. Ten is the perfect number because it is the sum of the numbers from one to four.
2. *Music*. Relation of notes worked out mathematically, thus giving science of music.
3. *Astronomy*. The perfect number ten is the basis of the arrangement of the heavenly bodies. The earth is a sphere; central fire in the center of the universe; bodies revolve from west to east. The motion of the bodies is regulated by mathematical laws, and that exactness of velocity is harmony.
4. *Geometry*. The Pythagorean proposition discovered. The square of the hypotenuse of a right-angle triangle is equal to the sum of the squares of the other two sides.
5. *Ethics*. Supreme good of man is to become godlike. This assimilation is secured by virtue, and virtue

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is harmony secured by balancing the faculties. Subordinate the lower to the higher. This harmony can be secured through knowledge, asceticism, music and gymnastics.

6. *Nature.* A philosophy of nature under thoroughly religious aspects. Particular importance is in directing Greek thought to calmer, deeper moral worth. Pythagoras himself believed in transmigration of souls (metempsychosis), a future life, and retribution.

88. Sophists (450 to 400 B. C.)

1. The aristocratic tendency of the Pythagoreans caused a mob hatred to develop, and the school had to be suppressed. The philosophers were scattered through Greece. Another condition unfavorable to philosophic thought was the new idea of individual freedom resulting from the battle of Marathon. It was then that the sophists appeared to receptive listeners.
2. The word sophist means wise man. The early teachers were given this name because wisdom was the content of their teaching. The first sophists went from city to city, gathered young men about them, and taught for certain fees. Later, the sophists rented rooms in the gymnasia or in the public squares. The subject-matter of instruction was mostly rhetoric as exemplified in the art of convincing by speaking, but the subjects are usually listed as grammar, poetry, style, oratory and mathematics.
3. Pupils were usually the ephebes.

EARLY PHILOSOPHERS AND THE SOPHISTS

4. Leading sophists. Protagoras of Abdera, the individualist; Georgias of Leontini, the nihilist; Hippias of Elis, the polymathist; and Prodicus of Ceos, the moralist.
5. *Results.*
 1. Argument exalted over truth and right.
 2. Disregard of the old, philosophical search after truth.
 3. Disregard for the old religion and social discipline. New view of practical usefulness in life.
 4. Threatened weakness and disintegration of the state. Individualism, or the absolute freedom of the individual, made emphatic.
 5. Helped change the ephebic education from formal routine based on custom to unrestricted development of a higher type; physical and political aspects yielded to moral culture under the literary aspect. The rhetorical and grammatical study of language and literature is the result of that transition.

CHAPTER XIV

THE SCHOOLS OF THE PHILOSOPHERS SOCRATES, PLATO, ARISTOTLE

The Greek educational theorists include the following:

Pythagoras, 582-500 B. C. Section 87.

Sophists. Section 88.

Socrates, 469-399 B. C.

Xenophon, 434-357 B. C.

Plato, 427-347 B. C.

Aristotle, 384-322 B. C.

I. Socrates (469-399 B. C.)

89. Motto.

“Know thyself.” From the study of the objective world, our environment, we should turn to the study of self. By observing and reflecting on our own mental activities, we can ascertain the conditions of knowledge, form concepts in the right way, and thus scientifically classify the principles of conduct and the principles of knowledge.

Socrates took this position to try to clarify conflicting notions in education. The Pythagoreans worked out a scheme of socialism which was rejected by the people. The sophists put emphasis upon sensations and emo-

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tions, and questioned the validity of general truth ; some denied the possibility of knowledge. Socrates set out to reconcile these views by showing that valid knowledge can be acquired as concepts if the process of thinking is right.

90. Fundamental principle.

“Knowledge is virtue.” There are ideas that possess universal validity, and a life will be virtuous if it is guided by that universal knowledge instead of by mere individual opinion. Education should aim, therefore, to develop individual power of thought that will lead to the guiding principles of conduct, not to superficial information and glibness of speech such as the sophists exalted. Under this view, Socrates put validity into the words of Protagoras, the sophist, “Man is the measure of all things.” Every individual has latent or developed power to know and to desire to enjoy such life virtues as honesty, truthfulness, fidelity and wisdom.

91. The Socratic method.

1. *The negative stage.* Socrates assumed a humble attitude as if he desired knowledge. His method was conversational, but direct statements were avoided. The answer to each question was the basis for the next question, and the process was continued until the consecutive answers ended in a confession of ignorance. The pretended deference of Socrates is known as Socratic irony.

2. *The positive stage.* The second series of questions led to the discovery of the truth. These questions caused the pupil to consider instances one by one and combine

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them inductively into a concept or general notion. This stage or process was called *maieutic* by Socrates, i. e., giving birth to ideas.

3. *Heuristic method.* The whole method is heuristic, or a way of discovering or finding. Spencer calls the method of discovery an empirical method. The Socratic method is, furthermore, an inductive method resulting in a definition.

4. *Illustrations.* See McEvoy's *Methods in Education*, page 82. Following is a suggestive application:—

Teacher. What is a straight line?

Pupil. A line that doesn't slant.

T. (draws a slanting line on the board). Is that a straight line?

P. Yes.

T. Does that line slant?

P. It does slant.

T. Do you still hold to your definition?

P. No, it is not accurate.

T. Why not?

P. A slanting line may be a straight line.

T. What, then, is a straight line?

P. The shortest distance between two points is a straight line.

5. *Specific value.* Knowledge can be classified as concepts possessing universal validity if sense-impressions are grouped according to the laws of thought, rather than according to the sound of rhetoric.

92. Influence of Socratic method.

1. Emphasis on knowledge that related to practical life and possessed moral worth.

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2. In place of the formal lecture method of the sophists, the conversational method aimed to generate power of thinking.

93. Limitations of the Socratic method.

1. It is adequate when it is applied to the formation of ethical truths since such experiences are for every individual.
2. It is not applicable when applied to subjects wherein the content is not given by the experience of the individual, such as mathematics, science, history, language and literature. In these, one's own experience is too narrow for a correct conclusion.
3. Socrates and Plato recognized the dialectic method for its value as a process in developing power, but some of their successors tried to give it universal application and thus gave themselves over to endless discussions relating to distinctions instead of to the validity of the thought contained. When this method was given permanent form in the science of logic first formulated by Aristotle, it became the basis of an entirely new conception of education, namely, *education as discipline*.

94. Place of instruction; pupils.

Wherever he met people. Two noted pupils were Plato and Xenophon.

95. Doctrines.

1. Immortality of the soul.
2. There is one Supreme Being, the intelligent Creator of the universe.

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II. *Xenophon (434 to 357 B. C.)*

96. Born in Athens, pupil of Socrates, soldier in Persian wars, became writer on history and philosophy.

1. Writings on education.

Cycropedia. Description of Persian education, but really a plea for Spartan education modified by the cultural ideals of Athens.

Economics. Training of wife for domestic efficiency. No intellectual training advocated.

2. Writings on history and philosophy.

Anabasis

Hellenica

Agésilas

Memorabilia

Xenophon's purpose was to counteract the individualistic doctrines of the sophists by exalting ideal life such as the Athenians might exemplify.

III. *Plato (427 to 347 B. C.)*

97. Definition of education.

"A good education is that which gives to the body and to the soul all the beauty and all the perfection of which they are capable."

98. Name of school.

The Academy; founded when Plato was forty.

99. Writings.

1. *Republic*, a description of the ideal state and the proper education therefor.

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- a. He considered the state as one living being.
 - b. Based upon a psychological analysis of the individual whose soul has three faculties: intellect or reason; spirit or courage; desire or appetite.
 - c. In the state the merchants and producers represent its appetite; the soldiers, its spirit; the philosophers, its intellect.
2. *Laws*, a modification of the theoretical views in the *Republic*. The latter is socialism as a remedy for individualism; while *The Laws* is a return to conservatism.
3. *Dialogues*, the teachings and the conversations of Socrates.

Theory as Expressed in the Republic

100. Classes of people.

1. The common people or industrial class, whose virtue is money-making; no education.
2. Guardians or citizens, the soldier class, whose virtue is honor; music and gymnastics.
3. Rulers, the philosophical class, whose virtue is wisdom; geometry, astronomy, rhetoric and philosophy after elementary work.

101. Absolute control by the state.

1. Family life and private property abolished.
2. Marriage controlled.
3. Weak children killed.
4. Healthy children with mothers in common in nurseries.

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5. Playthings in education. Boys and girls treated alike.

102. Periods of education.

1. Till 7. Play, physical exercises, fairy tales, poetry, gentleness.
2. 7-16 or 17. Gymnastics for harmony of body, music for harmony of soul. Music included literature, writing and arithmetic.
3. 17-20. Ephebes, military gymnastic training. See 75.
4. At twenty, promising youths selected for study of mathematics, astronomy, harmony and science.
5. At thirty, another selection for five years more of study.
6. 35-50. Serve the state. After 50 return to study of philosophy.

103. Summary and criticisms.

1. Plato originated a theory of ideas. Universal truths called ideas. Such ideas come from a world independent and above the world of sense.
2. Soul immortal and had prior existence in high state. Memory of former high state produces eagerness to attain knowledge of truth.
3. State control of education; compulsory for all between ten and sixteen.
4. Homeric poems should be expurgated; music and literature censored by the state.
5. Harmonious cooperation of all the powers of man.
6. There should be no forcing of the intellect in education. Adapt work to pupils.

THE SCHOOLS OF THE PHILOSOPHERS

7. Education should determine vocations and fit citizens therefor.
8. The first scientific and systematic scheme of education is history.

IV. *Aristotle (384-322 B. C.)*

104. Plato's pupil.

Studied under Plato nearly twenty years. Alexander the Great was Aristotle's pupil.

105. Aristotle's school.

Lyceum in Athens. Called peripatetic school because Aristotle walked under the covered pathways as he taught. Peripatetic means walking about, and peripatos means covered walk. Aristotle is known as the Peripatetic Philosopher, the Stagirite, because he was born in Stagira in Macedonia, and as the greatest mind of antiquity. He was fifty years old when he founded the Lyceum.

106. Aim.

To develop imperfect, untrained children into strong, patriotic citizens.

107. Writings.

1. *Ethics*.
2. *Politics*, his educational scheme.
3. Other writings dealt with morals, logic, rhetoric, psychology, physics, metaphysics, zoology and other subjects.

THE SCHOOLS OF THE PHILOSOPHERS

108. Pedagogy.

1. Education is a lifelong task.
2. Pedagogy based upon a knowledge of the individual.
3. Until 7, humane, physical education at home.
4. From 7 to 14. Thorough intellectual training.
5. From 14 to 21. Direct preparation for life. Severe physical training for war.
6. Women educated to train future citizens.
7. Natural method, inductive and deductive; concrete to abstract.

109. Summary.

1. The greatest intellect of antiquity.
2. Agrees with Plato that the highest of all arts is Politics—the art of directing society to produce the greatest good for mankind.
3. Success in directing society requires properly disposed group of citizens. Function of education is to produce such proper disposition.
4. Care of morals of children should be in the hands of the government and of parents, not in the hands of slaves.
5. Gymnastic training is for harmonious educational effect, not for superiority in athletics.
6. Use literature. Plato banished the poets.
7. Formulated the new science of esthetics.
8. Music approved.
 - a. Amusement, a form of relaxation.
 - b. A form of intellectual enjoyment.
 - c. It possesses a moral value.
9. All citizens educated, but effects will vary.
10. Used inductive method of research in his own work.

THE SCHOOLS OF THE PHILOSOPHERS

Wrote on inductive method in education, but favored the deductive method for tested validity. The inductive method is uncertain beyond our tested instances; the deductive method is universally valid if the rules of the syllogism are observed.

11. "Aristotle is the first great scientist; the greatest systematizer, in fact, that the world has ever known." (Monroe, p. 158.)

110. Comparison of Plato and Aristotle.

PLATO

1. Outlined an ideal scheme of education.
2. Value of ideas to the individual.
3. Intellect exalted.
4. Philosophic method.
5. Education a fixed process.
6. Music in the narrow sense.
7. Sought truth for its formal value.

ARISTOTLE

1. Gave principles for attaining such an ideal.
2. Value of ideas to the race.
3. Will emphasized. Intellect and will united. Happiness is the result of knowledge passing into action.
4. Objective and scientific method.
5. Education a constant development.
6. Music in the broad sense of liberal, intellectual training.
7. Sought truth in the experience of the race

THE SCHOOLS OF THE PHILOSOPHERS

PLATO

ARISTOTLE

and thereby developed the inductive process. This he applied objectively and subjectively, while the Socratic method used only the latter. *Hère for the first time in education the inductive and the deductive processes were consciously used as methods of procedure.* Using the inductive process more than any other man prior to Francis Bacon, Aristotle “became the father of practically all of the modern sciences.” (Monroe, p. 154.)

CHAPTER XV

ROME—EDUCATION FOR EFFICIENCY

The Roman ideal of efficiency is contrasted with the Greek ideal of culture and the contrast brings out the national differences. The Greeks were idealists following present enjoyment of the good, the beautiful and the true; the Romans were utilitarians preparing for the future. The Greeks developed according to reason; the Romans lived by authority. The Greeks were students of nature and their gods were close to human types; the Romans developed polytheism, but they did not deify nature in detail nor were their gods like human beings. The Greeks were poetic in their conceptions; the Romans were sternly practical in their interpretations.

The worship of the Romans consisted of prescribed ceremonies to satisfy the gods. The prayers, sacrifices and games dominated the trend of education. In private life, both education and religion were in charge of the head of the family; in matters of public welfare, religious ceremonies were conducted by the state.

The periods of Roman history referred to in the history of education are as follows:—

753(?) to 509 B. C. Mythical period of kings.

509 to 29 B. C. Republic. Period of developing the constitution by struggles between the patricians, or citizens with full political rights, and plebeians, or free in-

ROME—EDUCATION FOR EFFICIENCY

habitants without political rights (509 to 264). Laws of Twelve Tables, which were used as subject-matter in education, 450 B. C. Central and Lower Italy subjugated. During second part (264 to 146 B. C.) occurred the great wars of conquest of the East, Spain and Gaul. Greece became a Roman province 146 B. C.

29 B. C. to 476 A. D. Empire. Sway of Roman Cæsars down to fall of Roman Empire of the west.

Augustus, 29 B. C. to 14 A. D. Golden Age of Literature. The great poets: Vergil, *Æneid*; Ovid, *Metamorphoses*; Horace, *Odes and Satires*. Great historians: Cæsar, *Gallic War*; Livy, *Annals of Rome*; Sallust, *Jugurthine War*; Tacitus, *Germania*. Orator and philosopher: Cicero.

I. Early Roman Education (776 to about 250 B. C.)

111. Home.

1. Practically the only school.
2. Mother's worth exalted.
3. Father was teacher and companion of boy; high ideals; severe discipline.
4. Slight literary training for religious and choral service.
5. Laws of Twelve Tables.
 - a. Adopted 451-450 B. C.; basis of society.
 - b. Dealt with powers and rights.
 - c. Furnished ideals of education.
 - d. Posted in forum and learned by boys.

112. Schools.

1. Latter part of period. About 260 B. C., Spurius Carvilius, a Greek, opened a school. The name

INTRODUCTION OF GREEK SCHOOLS

associated with school was ludus, meaning a turning aside from sport or play. As the development of Roman boys was secured by natural freedom in play, the school was looked upon as something that interfered with sport, the accepted means of education.

2. Rudiments of reading, writing, arithmetic.
3. Private; in homes or on porches of temples.

113. Results.

“Virtuous, practical, robust men and women.”

II. *Introduction of Greek Schools (About 250 B. C.—50 B. C.)*

114. Period of transition.

1. Greek customs and ideas introduced. See 112 for school of Carvilius. Greek language, ideas and customs made known by Greek slaves. Many slaves employed as tutors.
2. Livius Andronicus (about 284 to 204 B. C.) translated *Odyssey* into Latin. Translation used as text-book.
3. Other translations gave literary material.

III. *Græco-Roman Education (About 100 B. C. to 200 A. D.)*

Known as Hellenistic education.

115. Aim.

Polished orators and forensic pleaders.

116. Schools.

Public; support was private. Women and slaves excluded.

117. Primary school.

7-12; under *literator*.

1. Reading. Alphabet, spelling, Latin *Odyssey*.
2. Writing. Used stylus on wax after tracing on tablets or engraved wood.
3. Arithmetic. Concrete calculations using fingers, pebbles, or abacus. Results written on tablets.
4. Citizenship. Memorized Laws of Twelve Tables.
5. Maxims. For dictation, composition, memory.
6. Strictly Roman training; *literator* not respected.

118. Secondary education.

1. Pupils 12-16; under *grammaticus* or *litteratus*.
Literary training in grammar school.
2. Two kinds: Greek and Latin instruction respectively.
3. Grammar literature oratory
rhetoric history philosophy
4. Processes in method.
 - a.* Memorizing choice literature.
 - b.* Reproduction of fables and stories.
 - c.* Paraphrase of poems.
 - d.* Composition very important.
 - e.* Analysis, criticism, reconstruction and elaboration.
 - f.* Frequent dictation exercises.
5. Aim. Mastery of the language; facility in reading,

NOTED ROMAN EDUCATORS

writing and speaking; and, as a means, familiarity with the best Latin and Greek authors.

6. Greek literary ideal made practical.

119. Higher education.

1. Under rhetor; practical training for professional life.
2. At 16, boy put on toga of manhood, the distinctive dress of Roman citizen.
3. Study of rhetoric, literature, criticism, law. Practice in declamation and debate.
4. Technical training on farm for farmers; in military camp for soldiers; in law courts for lawyers; in senate for orators. Compare with modern vocational training.

IV. Noted Roman Educators

MARCUS TULLIUS CICERO, *Orator and Philosopher*
(106 to 43 B. C.)

120. Cicero's pedagogy.

1. Education is a lifelong task.
2. Amusement should be refining.
3. Memory trained by exact selections.
4. No corporal punishment except as a last resort.
5. Style (literary and oratorical) a paramount aim.
6. Religion is the basis of morality.

LUCIUS ANNÆUS SENECA, *Philosopher* (3 B. C. to 65 A. D.)

121. Seneca's pedagogy.

1. Aim of education is to overcome evil tendencies.
2. Adapt education to individual needs.

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3. Environment should be pure and elevating.
4. Do not flatter; teach obedience, modesty, etc.
5. Thoroughness; give but few studies.
6. Corporal punishment mild or none at all.
7. Teacher's position highly esteemed.

122. Quotations.

1. "We best learn by teaching."
2. "We should learn for life, not for school."
3. "The result is gained sooner by example than by precept."

123. Seneca's pupil.

Nero.

MARCUS FABIVS QVINTILIAN, *Teacher (35 to 95 A. D.)*

124. Biography.

1. Born in Spain about 38 A. D.
2. Studied in Rome and practiced law there.
3. Opened a school of oratory. Broad grammatical and literary culture as a foundation for the orator.
4. Wrote *Institutes of Oratory*.

125. Pedagogy of Quintilian.

1. Oratory exalted; rhetoric is climax of education.
2. Public schools superior to private tutors.
3. Studies should be made attractive.
4. The work should be adapted to individuals.
5. Memory trained by using choice selections.
6. Concrete methods: forms and names of letters with objects.

NOTED ROMAN EDUCATORS

7. No corporal punishment.
8. Children begin foreign tongue first; their own is natural.
9. Qualifications of teachers stated; high requirements.
10. Activity of the mind is natural.

126. Summary.

1. The first scientific treatment of the problems of education.
2. The most successful Roman teacher.
3. The first teacher to hold position with regular salary.

PLUTARCH (*50 to 138 A. D.*). *Writer.*

127. Graeco-Roman.

Born in Greece, lectured in Rome.

128. Books.

1. *Lives of Illustrious Men.* Arranged in parallel columns in Latin and Greek.
2. *Training of Children*, the first treatise on infant education.

PLINY (*23 to 79 A. D.*). *Naturalist.*

129. Scientist.

Investigated phenomena of nature.

130. Death.

Suffocated while observing Vesuvius.

ROME—EDUCATION FOR EFFICIENCY

131. Books.

Natural History in thirty-seven volumes. It served as a Roman Encyclopedia.

VARRO (116 to 27 B. C.). *Writer.*

132. Librarian.

Appointed by Cæsar.

133. Title.

“The most learned man in Rome.”

134. Books.

More than 600 books on various subjects. Valuable treatise upon agriculture.

135. Criticism of Roman education.

1. Honored the home and respected the mother.
2. Instilled respect for law and obedience to authority.
3. Recognized the value of organization.
4. Not a state institution; not compulsory.
5. Superficial in trying to apply Greek culture.
6. Aimed at practical results rather than harmonious development of power.
7. *Humanitas.* The Seven Liberal Arts, the course of study organized by the monks, can be traced to the development of subject-matter in Roman education, and much of the Roman material can be traced to Athens. In the interpretation of the subjects, the Romans used the term *humanitas*, which means the study of the liberal arts, or those literary subjects which humanize and refine mankind. The word humanists embodies

SUMMARY OF ROMAN EDUCATION

this idea of liberal culture. The early leaders of the Renaissance in Italy were called humanists, and the word humanities was used to designate classical Latin and Greek in colleges and universities during the Middle Ages. Humanism is used in modern education in contradistinction to realism, the name given to the study of things such as physical science, geography, French and German.

V. Summary of Roman Education

The oldest period represents purely Roman ideals. The aim was to prepare for the duties of domestic, religious and political life. There were no books, no schools; the home, the forum and the fields helped form habits. Ballads, songs, recorded annals and laws were memorized and chanted. Piety, modesty, obedience, manliness, courage and honesty were resultant virtues, but there was no distinctive development of art, literature and science.

The influence of Greek life can be traced to contact as early as the rise of the republic in 509 B. C., but the first direct instruction by Greeks was not until 260 B. C., when Spurius Carvilius opened a school in Rome. At that time there was no Roman literature available for study because there were no text-books, but Livius Andronicus made a Latin version of Homer's *Odyssey* and that book gave the Romans the first enjoyment of the content and spirit that had been so long an inspiration to the Greeks. The Greek language spread on account of the work of Greek slave tutors, and in 146

ROME—EDUCATION FOR EFFICIENCY

B. C., when Greece became a Roman province, the Roman education had become thoroughly Hellenistic or Greek. Much of the instruction was imparted in Greek, but about 100 B. C. Lucius Stilo opened a school in which Latin was used. Cicero and Varro were students in the Latin school. The use of Greek declined after the opening of Stilo's school.

The introduction of Greek gave literary content to education, but the Romans never became exponents of culture; they were examples of education as discipline. During this period the schools of the literators and the rhetors taught Greek grammar and rhetoric and, later, Latin grammar and rhetoric.

During the period of the Roman Empire (30 B. C. to 476 A. D.), the Romans attempted to introduce the Greek spirit of individualism and culture, but the Roman institutional life did not yield easily. As imitators of the Greeks, the Romans improved the form of Latin literature and carried on organized efforts as enumerated.

1. The school of the literator taught reading, writing, elementary arithmetic, and parts of the Latin translation of the *Odyssey*.

2. The school of the grammaticus became a recognized type of grammar school in which either Greek or Latin was taught. Grammar included syntax and subject-matter; literature covered history and science as well as language; music, mathematics and dialectics also were appropriated from the Greeks, but music and gymnastics as known in Athens were not adopted.

3. The school of the rhetor gave a direct preparation for public life. Declamation, started in the grammar

DECLINE OF ROMAN EDUCATION

school, was a combination of literary and vocational training. Oratory was supreme as an aim because the orator was the type of man of greatest use in the community.

4. Libraries were secured as the spoils of conquest. Augustus and other rulers founded libraries.

5. Universities were associated with the libraries. The university of Rome was the outgrowth of the library founded by Vespasian (69 to 79 A. D.). The subjects of instruction were the liberal arts and a few technical studies such as architecture and mechanics.

6. The schools were supported by the empire and the towns, but national supervision was lacking. Grammar schools and rhetorical schools were organized in every province, but universities were not common.

VI. Decline of Roman Education (200 to 476 A. D.)

The effectiveness of education in general lessened as the Roman power declined. Soon after the opening of the Christian era, the decline in spirit was rapid, and the effect was evident in a corresponding loss in quality and scope of grammatical and rhetorical training. Education produced a caste effect by limitation to the upper class only, and even there the disciplinary value was replaced by affectation or adornment.

While the effectiveness of practical education declined with the lessening of political power, there was not cessation of all intellectual activity. A revival of classical culture came in the fourth century, when Emperor Julian returned to paganism. The grammar of the

ROME—EDUCATION FOR EFFICIENCY

seven liberal arts was enriched in content and organization by the writings of Donatus (about 400) and Priscian (about 500). Their grammatical analysis of language was the basis of language study for a thousand years. Grammarians, rhetoricians and sophists followed the Roman armies into the provinces, became known as itinerant or wandering teachers, and thus helped to disseminate some of the products of Grecian and Roman education.

CHAPTER XVI

SUMMARY OF EDUCATIONAL PROGRESS

I. National Ideals

137. Supremacy of the state.

Individual worth measured by usefulness to the state. In theory Aristotle recognized value of individuals for their own sake.

138. Passive types.

China and India were passive types; self-activity impossible.

139. Active types.

Phenicia, Persia, Egypt and Sparta were active types, but not permanent. Phenicia was selfish; Persia and Sparta were too active in war to leave leisure time for culture.

140. Harmonious development.

Athens had the noblest ideal, but it lacked Christian conception of individual worth.

141. Utility.

Rome sought practical efficiency; good, but not broad enough for humanity.

SUMMARY OF EDUCATIONAL PROGRESS

142. Theocracy.

Direct preparation for individual ideal of Christian era. The Jews also proved the value of an ideal in education.

II. Subject-Matter

143. Alphabet from Phenicia.

144. Notation from Hindus.

145. Abacus used in China and Egypt.

146. Development of grammar, rhetoric, logic, arithmetic, geometry, music, astronomy, etc.

147. A literature in Greek and in Latin.

148. Philosophy, medicine, law.

III. Methods of Teaching

149. Concrete methods. Abacus in China and Egypt for arithmetic; reading and writing so taught in Egypt, by Plato's *Laws*, and by Quintilian's *Institutes*.

150. Inductive and developing methods by Socrates.

151. Deductive method by Aristotle.

152. Practical methods in rhetoric by Quintilian.

IV. School System

153. Organization in Rome. Consistent system of elementary and higher education culminating in the schools of Rhetoric, Philosophy, Law, and Medicine.

SUMMARY OF EDUCATIONAL PROGRESS

V. *Butler's Spiritual Inheritances*

154. Scientific. Classifications by Aristotle, Pliny, Ptolemy, etc.

155. Literary. Excellent in Greece and Rome.

156. Esthetic. Excellent in Athens.

157. Institutional. Some in Persia, Sparta, Athens; best in Rome.

158. Religious. In all nations; Christian ideal lacking.

VI. *Pedagogical Principles*

159. State control of education. Advocated by Plato and Aristotle.

160. Compulsory education. Plato, for all between ten and sixteen.

161. Natural order of development. Aristotle.

162. Associations. Pure attendants, subject-matter, and environment. Plato and Quintilian.

163. Teaching a dignified vocation. Some recognition in every nation.

164. Corporal punishment. Tendency to limitation.

165. Adaptation to capacity. Plato, Aristotle, Seneca, Quintilian and Plutarch.

PART III

MEDIEVAL EDUCATION

THE CHRISTIAN FATHERS

THE MONKS

CHARLEMAGNE

ALFRED THE GREAT

CHIVALRY

MOHAMMEDANS

CHRISTIAN UNIVERSITIES

SCHOLASTICISM

CHAPTER XVII

MEDIEVAL EDUCATION

1 TO 1500 A. D. EDUCATION AS DISCIPLINE

Pedagogy of the Great Teacher

Christian education is considered under two divisions, medieval and modern. The first period of fifteen hundred years embraces the time of transition from Greek and Roman ideals. The highest ideal in Greek thought was Aristotle's conception of happiness of the individual in conserving the welfare of society. As this ideal required intellectual efficiency, it was an aristocratic ideal since only a few were permitted to enjoy the full privileges of education. The Christian ideal rested in the moral development of man through charity or love that appealed to all. Thus the Greek ideal was intellectual and aristocratic; the Christian ideal was moral and democratic.

Conflict arose in attempting to harmonize the two ideals and there was consequent hostility between Christianity and Greek culture. Compromises produced advantages to Christianity, especially in methods of teaching. The Greek method of selecting themes or texts, of logical analysis, and of allegorical interpretation was adopted by the Christian Fathers.

The influence of Roman thought was distinctly help-

MEDIEVAL EDUCATION

ful to Christianity. In the interpretation of Stoic philosophy by the Romans, virtue was an aim, conscience was a guide, and deeds were a test of worth. Duty was an ethical standard and obedience was a life virtue. Christianity adapted these views to the conduct of life and extended the conception of moral duty to include individual and social obligations here and hereafter. Ethics and morality thus controlled the interests of all mankind, and education became dominantly religious for the sake of salvation of souls.

166. Growth of Christian ideas.

1. Fatherhood of God.
2. Brotherhood of man.
3. Marriage a divine right. Wife equal to husband.
4. Children are the gift of God.
5. Individuality is important: man responsible to God.
6. All education is for the individual.

167. Pedagogy of Christ.

1. Ideal perfection as an aim.
2. Fundamental truth emphasized.
3. Adaptation to hearers.
4. Forceful illustrations.
5. Simple, earnest, sympathetic.
6. Mastery of questioning.
7. Exemplified what he taught.

CHAPTER XVIII

EARLY CHRISTIAN EDUCATION. TO 529 A. D.

168. Aim.

To prepare for future life.

169. Obstacles.

1. Poverty.
2. Ignorance.
3. Small number.
4. Opposition of rulers.
5. Lack of Christian literature.

170. Schools.

Odessa in the second century was the first one. Others at Antioch and Athens.

1. Catechumen schools for converts. The catechumens were applicants for baptism and other rites in the Christian Church. They were taught the Lord's Prayer, the Apostles' Creed, the Ten Commandments and other portions of Scripture. The method was questions and answers, a method called catechetical.

2. Catechetical schools: reading, writing, religion; later, the liberal arts. Famous school at Alexandria, Egypt, 181 A. D., developed by Pantænus, Origen and others. Religion associated with university culture. Other schools at Cæsarea, Rome and Carthage.

3. Cathedral or Episcopal schools. Prepared young men for the priesthood. Organization perfected in eighth century. Priests were teachers. Parochial schools in parishes.

THE CHRISTIAN FATHERS

171. Use of pagan literature.

The problem of the subject-matter of instruction divided the leaders of the early Church. As all agreed that the mission of the Church was a moral one, they tried to decide whether to accept or reject Homer, Vergil, and all other parts of pagan learning. Most of the Greek Fathers favored its use for the good it contained, while the Latin Fathers maintained that there was danger in whatever was not wholly and positively helpful to Christianity.

Second and Third Centuries

172. Clement of Alexandria, Greek. (160-215.)

1. Use all literature and past education.
2. Harmonize philosophy and religion; reason and faith.

173. Origen, Greek. (185-254.)

1. Teacher at eighteen at Alexandria.
2. Most learned of the Church Fathers.
3. Reconciled Greek culture with Christian religion.
4. Encouraged investigation by pupils.

174. Tertullian, Latin Father. (150-230.)

1. Against pagan literature.
2. Founder of Christian Latin literature.

THE CHRISTIAN FATHERS

Fourth and Fifth Centuries

175. St. Jerome, Latin Father. (331-423.)

1. Translation of Bible into Latin Vulgate.
2. Wrote *Letters on the Education of Girls*.
3. Against pagan learning.

176. Chrysostom, Greek Father. (347-411.)

1. Mothers are the natural educators.
2. Teacher must adapt himself to capacity of pupils.
3. Religious instruction is essential.
4. Greatest pedagogue of this period.

177. Basil the Great, Greek Father. (331-379.)

1. Use pagan literature.
2. The Bible, the chief text-book.
3. Church songs and religious instruction made the foundation of common schools.

Fifth Century

178. St. Augustine, Latin Father. (354-430.)

1. The greatest of the Church Fathers.
2. A zealous convert.
3. Against pagan literature.
4. Used observation in instruction.
5. History in narrative form is the chief subject.
6. Writings.
 - a. *Confessions*. This is a psychology of the soul.
 - b. *The City of God*.

CHAPTER XIX

EDUCATION OF THE MIDDLE AGES

The term Middle Ages is used for the period of nearly a thousand years between Early Christian Education and The Great Renaissance. The date 529 A. D. is chosen for division because it stands for the suppression of the University of Athens and the abolition of pagan schools by Justinian, and also for the establishment of the first Benedictine monastery at Monte Cassino, Italy.

I. MONASTIC EDUCATION

Education as Moral Discipline, 6th Century to 16th Century

179. Importance of monasticism.

See benefits following 188.

1. A type of education for one thousand years.
2. Only intellectual education during this period: 6th-13th centuries, elementary; 13th-16th, universities.

180. Causes and occasions of monasticism.

1. In 410, Alaric the Goth sacked Rome. This was followed by six centuries of unstable society in Europe.

MONASTICISM

2. Persecution of Christians.
3. Corrupt world not ruled directly by God ; therefore renounce world, and seek God in contemplation.
4. Immediate second advent of Christ expected ; special preparation therefor.
5. Idea of asceticism. Asceticism is a system of moral training by which perfection is sought by subjugating the lower impulses, i. e., by conquering the desires of the body. The ascetic ideal includes various forms of abstinence, such as celibacy, poverty, fasting and solitude.

Two types of early asceticism are associated with monasticism. In Syria and Egypt, the Anchorites lived in retreat as hermits and used their time in contemplation. In the West, the Cenobites lived in communities and worked systematically. Every hour is scheduled by regulation as in St. Benedict's Rule of Monastic Life.

181. Nature of monasticism.

1. Ideal was asceticism. Original meaning, training or discipline of athlete ; later meaning, discipline of all powers for higher life.
2. Educational ideal of asceticism was the moral and spiritual perfection through discipline of physical nature.
3. Three ideals.
 - a. Chastity. Celibacy instead of family life.
 - b. Poverty. Needs of Church instead of industrial society.
 - c. Obedience. Submission to God instead of the state.

EDUCATION OF THE MIDDLE AGES

182. The monastic orders.

1. Benedictines, founded by St. Benedict, at Monte Cassino, near Naples, 529. Date of abolition of pagan schools by Justinian.
 - a. Rule: work, prayer, teaching.
 - b. Most influential in education.
 - c. Monasteries famous for their educational efforts were
 - Austria—Salzburg, 696.
 - England—Canterbury (586), Glastonbury, Yarrow, Wearmouth, Malmesbury, Oxford (ninth century).
 - France—Lyon, Tours, Paris, Rouen, Corbie, Bec, Clugny.
 - Germany—Fulda, Hirschau, Constance, Hamburg, Cologne.
 - Italy—Monte Cassino (St. Benedict).
 - Switzerland—St. Gall.
 - Ireland—Armagh.
 - d. Famous teachers: Abelard (Paris), the greatest; Alcuin, see 189; Boniface (Germany).
 - e. Motto. "Love the study of the Scriptures and you will not love vice."
 - f. Their great monasteries were at once fortresses against crime, refuges for the oppressed, centers of instruction for the people, the free home of the sciences, archives of literature, schools for the young, universities for the learned, chanceries for kings, seminaries for priests, schools of agriculture, of manufacture, of music, architecture, and painting. Nor was the education of girls neglected.

THE SEVEN LIBERAL ARTS

The nuns of St. Clare were as active in teaching as their brother monks.—Browning, *Educational Theories*, p. 46.

2. Franciscans, founded by St. Francis, 1182. Duns Scotus, famous representative. Emphasized the will.
3. Dominicans, founded by St. Dominic, 1216. Thomas Aquinas, "the Angelic Doctor," representative. See 223. Emphasized intellect.
4. Cistercians founded in 1098. Asceticism carried to extreme: absolute silence, solitary life as far as possible, rigid enforcement of ascetic rules in ceremonials.

183. Educational work of the monks.

1. Copying manuscripts and thus preserving learning.
2. Collecting and keeping manuscripts: libraries.
3. Writing chronicles, comments, lives of religious men and women.
4. Teaching.

184. The Seven Liberal Arts.

A course of study.

- | | | |
|------------|---|------------|
| 1. Trivium | { | grammar |
| | | rhetoric |
| | | logic |
| Quadrivium | { | arithmetic |
| | | geometry |
| | | music |
| | | astronomy |
2. Mentioned by Plato, Quintilian, St. Augustine and others, but definitely organized as a course of study by the monks.

EDUCATION OF THE MIDDLE AGES

3. Content of the Seven Liberal Arts.

- a. Grammar, principally Latin, some Greek and Hebrew; explanation of some well-known writers, learning of prosody, etymology, and correct expression. Here is germ of humanism.
- b. Rhetoric from Quintilian and Cicero.
- c. Logic, dialectic from Aristotle.
- d. Arithmetic, mostly secret property of numbers.
- e. Geometry, from Euclid, included some geography.
- f. Music emphasized.
- g. Astronomy, names and courses of stars; relation to festivals; the only natural science; related to astrology.

185. Methods of teaching.

Few text-books; teacher dictated lessons; pupils copied on wax tablets, then memorized.

186. Female education.

St. Benedict's sister, known as Sister Scholastica, established an institution for women.

English Representatives

187. Aldhelm. (640-709.)

Bishop of Sherborne.

1. Studied in Ireland, France, Italy, Canterbury.
2. First Englishman to write in Latin.
3. Wrote sonnets, sermons and epistles in Saxon.

BENEFITS OF MONASTICISM

4. Books on arithmetic, astrology, history, religion and Latin prosody.
5. Poet and musician. His songs a medium of instruction.
6. Abbot of Malmesbury monastery.

188. Bede (about 673-735). Writer.

1. Educated at monasteries of Wearmouth and Yarrow under Biscop.
2. Ordained priest at 30.
3. Studied Latin, Greek, Hebrew.
4. Wrote *History of the English People*. In five books; now a source-book on England down to 731 A. D.
5. Other writings: *Ecclesiastical History*; books on grammar and chronology; sermons, hymns, epigrams; commentaries on Old and New Testament; translation of Gospel of St. John into Saxon.
6. Greatest name in literature of Saxon England.

Benefits of Monasticism

1. The monks were missionaries, and thus the Church controlled the fierce northern barbarians.
2. The monks were copyists who gathered, multiplied, and preserved ancient manuscripts of classic literature.
3. The monks were teachers and the monasteries were the schools of the Middle Ages. They thus kept up educational interest.
4. The monasteries were the inns, the almshouses, the asylums, and the hospitals of medieval Europe.
5. The Benedictines became agriculturalists and taught

EDUCATION OF THE MIDDLE AGES

this industry. Benedictine nuns founded schools for girls.

6. Music, painting, architecture, stimulated; large libraries founded; universities established.

II. PERIOD OF CHARLEMAGNE, 800 TO 900

The First Renaissance

The principal influence in the revival of learning during this period of education was the enthusiastic work of the monks from Ireland, Scotland and England. Many zealous missionaries were prepared in the monasteries founded in Ireland after the conversion by St. Patrick in 432 A. D. Those missionaries founded schools in various parts of the British Isles and Europe. Credit is given for the work of St. Columba of Iona in Scotland; the monasteries of York, Yarrow and Wearmouth in England; the organized efforts of Theodore of Tarsus, the archbishop of Canterbury in southern England; widespread conversion of the inhabitants of France; and the founding of schools by St. Boniface in Germany. Such was the zeal in education and religion when Charlemagne became ruler of the Frankish domain in 771 A. D. He perceived the necessity of education as a means of unifying the people under his jurisdiction, and he decided to make use of the organization of the Church in combining religion and education of his people.

189. Charlemagne (742-814).

1. Crowned Emperor of Rome by Pope Leo III, Christmas, 800.

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2. Ruled France, Germany, parts of England, Austria, Italy.
3. Capital, Aix-la-Chapelle; nominal capital, Rome.
4. Aim was to reorganize Roman Empire under the Christian religion.

190. Charlemagne's work.

1. Founded schools, secured best teachers.
2. Favored increased education of the clergy.
3. Favored secular instruction in monasteries.
4. Realized the value of a national system of universal, compulsory education.
5. Used German for Lord's Prayer, Apostles' Creed; tried to develop German language.
6. Became a student and learned Latin, Greek, grammar, rhetoric, music, astronomy, and natural history.

191. Alcuin (735-804).

1. Most learned man of his age; a Benedictine monk at York; invited to court by Charlemagne.
2. Founded Imperial School of the Palace: Palatine school for royalty.
3. Subjects. Some liberal arts plus some other work.
4. First minister of public instruction in France.
5. Method. Catechetical; his own answers served as maxims.
6. Wrote on grammar, rhetoric, dialectic, arithmetic, seven liberal arts.

192. Rabanus Maurus (776-856).

1. Ablest and most noted pupil of Alcuin.
2. Abbot of Fulda, Germany.

ALFRED THE GREAT

3. Compiled an encyclopedia.
4. Knew Greek, but preferred dialectic which he called "the science of sciences, which teaches us how to teach and how to learn."
5. Wrote important treatise upon the *Education of the Clergy*, covering the entire field of education of his time.

193. Joannes Scotus Erigena (about 810 to about 875).

1. Successor of Alcuin in the Palace School.
2. Broad knowledge of the Greek language and the Greek Fathers.
3. The work of Maurus and Scotus leads directly to scholasticism.

194. Alfred the Great in England (858 to 901).

1. Became king of the western Saxons in 871.
2. United kingdoms; made foundations of navy.
3. Made laws: established foundations of English institutions.
4. Translated works into Anglo-Saxon, especially *Bede's History of the English People* and the *Consolations of Philosophy of Boethius*. Thus he helped the language.
5. Encouraged education of the higher classes and possibly laid foundation of Oxford University.
6. Methodical habits: Eight hours to government, eight hours to religious devotion and study, eight hours to sleep, recreation and amusement.
7. Influenced by Charlemagne. Note that Alfred neglected the education of the lower classes.

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III. THE PERIOD OF CHIVALRY OR FEUDALISM (900-1200)

Education as Social Discipline

I. Feudalism

195. Aims.

1. To adjust individuals to service in the community.
2. To promote secular education by getting away from the monastic ideal of asceticism. This life should be full of happiness.
3. To exalt woman by giving her recognition in the social organization. To do this, girls should be trained and boys should be habituated to life virtues of purity, loyalty, love and honor.

196. Development of ideals.

Monastic education, largely religious, prepared for living while aiming at the future life; Charlemagne tried to organize an empire controlling education for this life and the hereafter; feudalism tried to secure actual preparation for this life. Compare Dewey's sociological view of education.

197. Authority in education.

Education controlled by Church; no state schools; instruction in castles.

198. Perfections of a Knight.

Seven perfections of a knight: horsemanship, swordsmanship, swimming, use of bow and arrow, hunting, chess and verse-making.

These prepared for service in this life, i. e., secular

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or social usefulness; monastic education prepared for religious service in the Church and the future life.

199. Three periods of a knight's education.

1. Till 7, home; mother; health and courtesy.
2. 7-14, page; music, poetry, chess and some study.
3. 14-21, esquire, attended master, learned arts of war, hunting, fencing, etc. Recall ephebic period of the Greeks and the Roman initiation into citizenship.

200. Girls at home.

Domestic arts, etiquette, reading, writing, poetry; some took music, French, Latin. Results commendable.

201. Criticism of feudal education.

1. Woman highly honored.
2. Manly virtues inculcated.
3. Minnesingers contributed to literature.
4. Not universal; neglected the intellect.

II. Crusades (1096 to 1273)

202. Meaning.

The crusades were efforts by the European Christians to rescue the Holy Sepulcher in Jerusalem from the Mohammedans. The leaders were Peter the Hermit, Godfrey of Bouillon, Conrad III, Louis VII, Richard the Lion-Hearted, Barbarossa.

203. Some of the results.

1. Downfall of feudalism.
2. Commercial enterprise: Venice and Genoa.

MOHAMMEDANS

3. Desire for travel and discovery.
4. Thought awakened by contact with the East.
5. Feeling of unity of nations in one purpose.

IV. MOHAMMEDAN EDUCATION

204. Mohammedanism or Islam.

Dates from 622, Flight from Mecca. Mohammed (570 to 632 A. D.), the founder, had contact with Jews, Christians and other religious sects in Arabia and Syria. He felt himself called to lead his people and furnish them a guiding book.

205. Koran.

This sacred book of Mohammedanism is ascribed to a special communication from Allah to Mohammed. It is a composition of Hebrew, Christian and Arabian traditions. While it is the work of Mohammed, it was not put into form until after his death. Its principal doctrines are one God and unconditional predestination.

206. Activities.

The Mohammedans became warriors, conquerors and then educators. Their zeal amounted to fanaticism.

207. Schools.

In many towns and cities in Europe, Asia and Africa. Universities in Bagdad and other cities in the East; Cordova, Grenada and Seville in Spain. The works of Greek philosophers, physicians and mathematicians were translated into Arabic in the schools of Bagdad and neighboring cities. Noted educators built up centers of

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learning that attracted students from three continents, and those institutions held sway for nearly three centuries following 850. There a group of famous scholars, known as "Brothers of Sincerity," tried to combat the fanaticism of Islam by planning a complete scheme of education based on science and leading to social harmony such as the Pythagorean philosophers desired to secure. The scheme covered mathematics, logic, natural sciences, law and theology, thus embracing the best from Greeks, Romans, Hindus, Arabs and other national sources.

208. Elementary schools.

1. For boys and girls.
2. Koran the main study. Reading and writing taught.

209. Higher schools.

Mathematics, astronomy, grammar, philosophy, chemistry, etc., taught.

210. Influence.

1. They preserved and transmitted the philosophy of Aristotle.
2. They translated the works of Euclid; remodeled the algebra of the Greeks and Hindus into modern form; founded a new trigonometry on the Greek basis and gave a knowledge of arithmetical notation to the West.
3. They added much to the knowledge of medicine, surgery, pharmacy, astronomy, physiology, chemistry and physics.
4. They constructed astronomical tables, invented the

EARLY CHRISTIAN UNIVERSITIES

pendulum clock, and improved inventions in navigation and commerce.

5. They introduced the use of rice, sugar, cotton, and the cultivation of silk.
6. They stimulated the Christians to establish rival institutions for secondary education.

V. EARLY CHRISTIAN UNIVERSITIES

211. Origin.

1. Scholastic interest in dialectic of scholasticism.
2. Migrations of the Teutons ceased in the eleventh century, permitting stable civilization.
3. Development of commercial enterprise and municipal government in Italy.
4. Stimulation of Saracenic learning by contact in crusades.
5. Direct outgrowth of monastic schools.

212. Organization.

1. Charters conferred by Pope or rulers.
2. Democratic government. Student control in southern universities.

213. Privileges.

1. Exemption from general military service.
2. Internal jurisdiction held by the university itself.
3. The degree was a license to teach.

214. Faculties.

The subject-matter of instruction included four departments.

1. Law.
2. Medicine.

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3. Philosophy.

4. Theology.

215. Names.

1. Salerno, Italy, 1060; medicine.
2. Bologna, Italy; law.
3. Paris, greatest of the middle ages; Abelard, the most popular teacher.
4. England—Oxford, 1140; Cambridge, 1200.
5. Germany—Prague, 1348; Heidelberg, Leipsic.
6. France—Paris, Toulouse, Orleans, etc.
7. Austria—Vienna, 1365.
8. Sweden—Lund, Upsala.
9. Norway—Christiania.
10. Denmark—Copenhagen.

VI. SCHOLASTICISM (9th-16th Centuries)

The Second Renaissance

Education as Intellectual Discipline

216. Definition.

Scholasticism was an educational movement to reconcile philosophy and Christian doctrines.

217. Time.

Ninth-15th centuries; climax, 11th-13th; Abelard, teacher at Paris; Aquinas, philosopher; Roger Bacon, the Franciscan investigator.

218. Monks.

The Schoolmen or Scholastics were monks. Scholastic, derived from scholasticus, the name of an authorized teacher in a monastic school.

219. Purpose.

1. Stated in 216.
2. Heretical views had to be met by argument.
3. Reason questioned authority in religion.
4. Scotus and Maurus had aroused intellectual activity.
5. The Crusades had stimulated new thought.
6. Students returning from Saracenic universities were advocating the pagan interpretation of Aristotle. Scholasticism aimed to guide the process of thinking so that students could uphold or justify Christianity by reasoning according to logic and philosophy. Recall the work of Socrates in teaching men how to think.
7. Scholasticism sought to satisfy the new conditions by making reason support faith. For this it was necessary
 - a. To give knowledge a scientific classification.
 - b. To give individuals a mastery of systematized knowledge.

220. Form of scholastic knowledge.

1. Ideal was logical perfection according to deductive method of Aristotle; not adapted to immature minds.
2. Prior to this time, catechetical (question and answer) arrangement of subject-matter.
3. Early scholasticism used dialogue method and also catechetical method.
4. Perfected scholasticism required arrangement "rigidly scientific in form though wholly deductive in character."

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221. The method of scholasticism.

1. Logical analysis into parts, heads, subheads, subdivisions, etc., according to the logic of Aristotle.
2. The freer method of stating a proposition, considering several interpretations and the difficulties of each interpretation and then forming a conclusion. This method more stimulating than strict logical analysis.
3. Abelard stated his theories as questions instead of propositions; as "Is God the author of evil, or no?" This method aroused individual interest.

222. Syllogism.

The syllogism was the process of reasoning employed. A syllogism is a form of deductive reasoning by which a valid conclusion is formed from two valid premises.

Major premise. All men are mortal.

Minor premise. Aquinas is a man.

Conclusion. Aquinas is mortal.

Contrast this with the inductive method advocated by Francis Bacon in the seventeenth century. The inductive method makes use of several observations and then formulates a rule or law covering the agreement observed. For treatment of induction and deduction, consult McEvoy's *Methods in Education*, page 91.

223. Representative schoolmen.

1. Abelard, eloquent teacher at Paris. Benedictine. (1079-1142).
2. Thomas Aquinas (1225-1274), the Angelic Doctor; a Dominican; emphasized the intellect. Gradu-

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ated from Paris, 1248. Taught in Cologne, Paris, Rome, Naples.

- a. Wrote *De Magistro*, Concerning the Teacher; also *Summa Theologiae*.
 - b. Theologian: a master of the deductive method of Aristotle and its application to theology.
 - c. Authority on Christian philosophy.
3. Duns Scotus (1271-1308), Franciscan; the *will*.
 4. Albertus Magnus (1193-1280). Dominican teacher of Aquinas at Cologne and Paris.

VII. MYSTICISM

The mystic phase of education as discipline is placed in the period of scholasticism and associated in particular with St. Bernard of Clairvaux (1091 to 1153). Mysticism is a tendency of the mind toward the supernatural, or an effort of the soul to come into actual communion with God. This direct and immediate blending of divine and human is secured by training the soul by use of imagination and contemplation. In this sense, mysticism is related to asceticism of monastic training.

The psychology of mysticism shows the pedagogy. The soul, which is spiritual and immortal, has threefold nature: (a) the lowest or animal part is a part of the body; (b) the reasoning or logical part is distinctly the human part; (c) the spiritual or superhuman part is identified with the divine. These three stages of experience imply adapted training in education and religion. The first stage is purgation or purification, as suggested by Pythagoras, Aristotle and asceticism of the monks.

BURGHER SCHOOLS

The second stage is the perfection of the inner life by thinking and doing under religious guidance. The third stage was continual approximation to the life of God by contemplation. The assimilation of human and divine was a state of ecstasy.

Mysticism represents reaction against the extreme appeal to reason by Abelard of Paris. It is exaltation of imagination in the work of salvation. "If thou wishest to search out the deep things of God, search out the depths of thine own nature."

References. Monroe's *Text-Book on History of Education*, 279; Turner's *History of Philosophy*, 302.

VIII. OTHER TYPES OF SCHOOLS

Burgher or Guild Schools

This type of school was developed as free cities arose and artisan classes rose in social rank. The aim was to increase the effectiveness of instruction in technical instruction and to assure the desired development of citizens. The priests were usually the teachers and they received compensation from merchant and craft guilds. Some laymen were employed as teachers; and there were wandering scholars or mendicant monks secured for temporary service. The matter of instruction included the Seven Liberal Arts, a little natural science, Latin, and probably the mother tongue.

Town Schools

Consolidation of burgher schools, parish schools and private schools often secured better support, better or-

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ganization and better results under support and supervision of towns or cities. The improvement in instruction conformed to developing economic interests.

Charity Schools

A type of episcopal schools but better because the priest received endowment for the school. Such support or legacy insured permanency and quality of teaching.

IX. SUMMARY OF PROGRESS OF THE MIDDLE AGES

1. Importance of the individual recognized by Christianity.
2. Education controlled by Church, except under Charlemagne.
3. Church Fathers were leaders; monks and priests were the principal teachers. Great influence upon masses at large.
4. Crusades checked feudalism, and aroused the people to a broader conception of man's power and duty.
5. Many universities founded.
6. Scholasticism defended the Christian faith against those who attempted to upset religious doctrines by the use of pagan philosophy. Use of the deductive method of Aristotle.
7. Benefits of monasticism. See following 188.
8. Woman honored and fairly well educated.
9. Model principles of pedagogy in Christ's teaching.
10. Seven Liberal Arts, a course of study for elementary schools; faculties in Christian universities—Law, Medicine, Philosophy and Theology—course of study in higher education.

PART IV

MODERN EDUCATION

RENAISSANCE

HUMANISM

REALISM

INNOVATORS OF 17TH CENTURY

NATURALISM OF 18TH CENTURY

PSYCHOLOGICAL TENDENCY

SCIENTIFIC TENDENCY

SOCIOLOGICAL TENDENCY

ECLECTIC TENDENCY

CHAPTER XX

MODERN EDUCATION—1500 TO PRESENT

The Renaissance. 1500 to 1600

The sixteenth century is generally considered the first century in the period of modern education. It embraces the Revival of Learning, the Reformation, the Counter-Reformation and Realism. The invention of printing was the one great stimulus to all these phases of mental activity.

224. The invention of printing.

1. The art of printing was first practiced by the Chinese. The first use of printing cannot be determined accurately, but the year 930 is sometimes given.
2. The cities of Haarlem in Holland and Mentz and Strasburg in Germany all claim the honor of having been the place of the first printing in Europe.
3. Laurentius (sometimes called Custer) lived in Haarlem and seems to be the rival claimant. He worked with two brothers, the younger named Gutenberg. On the death of the former, about 1440, Gutenberg moved the wooden types and

other printing equipment to Mentz where he formed a partnership with John Faust. Gutenberg was the first to cast movable types in metal, about 1450; and in 1456 Peter Schoeffer completed the invention by cutting the matrices to cast the type from.

4. See 6 under 226.

225. The renaissance, revival of learning, or renaissance.

Three renaissances: (a) Period of Charlemagne, not permanent; (b) Scholasticism, powerful intellectual stimulation; (c) Renaissance of 16th century.

The word renaissance is French derived from Latin *re*, again + *nasci*, to be born; hence, to be born again, to awaken, revival. The term is applied to the period of revival of art, literature and culture in Italy in the fourteenth century and in other parts of Europe in fifteenth and sixteenth centuries.

226. Causes.

1. Downfall of Constantinople, 1453. Greek scholars, fleeing from Turks, settled in Italy and other parts of Europe.
2. Crusades enlarged the views, aroused ambition, and led to study and invention.
3. Decline of feudalism, independence of individuals and feeling of personal responsibility to government.
4. Invention of gunpowder turned minds from war.
5. Invention of mariner's compass turned minds toward commercial enterprises.

MODERN EDUCATION—1500 TO PRESENT

6. Invention of printing and introduction of linen paper.
 - a. Changed methods of teaching by supplanting dictation. Inquiry, investigation, research.
 - b. Changed mental activity from memory to understanding by lessening copying of dictation.
 - c. Demanded more originality and breadth from professors.
 - d. Developed local patronage of universities by lessening necessity of travel to lectures.
 - e. Edition of Vergil printed in Florence in 1472. In 1500 there were at least 10,000 books and manuscripts in printed form.
7. Development of national languages and literatures, such as Italian, German, French.
8. Security of persons and property due to increasing stability of society and powers of government.
9. Official intercourse among nations.
10. The revival of interest in the direct study of Greek and Latin classics, especially Greek.
11. Deventer influence through Brethren of the Common Life. See 235.

227. Characteristics.

1. Individual worth in this world exalted.
2. Use of the mother tongue, instead of Latin, as a written language.
3. Growth of modern science.
4. Increased attention to education of women.
5. Changes in course of study.
6. Changes in methods of teaching.
7. Idea of universal, national, compulsory education.

THE RENAISSANCE

228. Transition.

Note that the transition was not abrupt. The renaissance was the cumulative result of all the preceding historic conditions; and as such, it continued to utilize many of the "old methods of thought, the old ideas and ideals." The one new and predominating characteristic was the enthusiastic devotion to ancient classic literature.

229. Tendencies and their educational results.

1. Pleasure in sharing the life of the ancient Greeks and Romans. *Humanism in education.*
2. Pleasure in the things of this life; practical rather than philosophical and religious point of view. *Realism in education.*
3. Appreciation of natural environment. *Naturalism in education.*

230. Renaissance in Italy.

1. Spirit of joy in life.
2. Activity in securing classical manuscripts.
3. Pioneers. See 236.

231. Renaissance in Northern Europe.

1. General intellectual awakening.
2. Elizabethan literature in England.
3. Greek teachers in English universities.
4. Social reform and social improvement.

232. Educational meaning of the renaissance.

Revival of idea of liberal education as expressed by the theorists in Greece and upheld by educational leaders in Rome.

MODERN EDUCATION—1500 TO PRESENT

1. Imitation of Christian ideals modified by Roman utilitarian tendencies.
2. Hostile to the dogmatic scheme of scholasticism.
3. The aim of education is a perfect man fitted for social participation.
4. Emphasis of physical training, a new element in education. Recall Spartan ideal.

233. Summary.

The new conception of the liberal education includes the physical, the esthetic, the moral, the literary, and the social, as well as abstract, literary, theological and ecclesiastical elements.

234. The narrow humanistic education.

1. The Greek and the Latin languages and literature became known as the humanities. That is, the studies that humanize or civilize mankind. Humanism means, then, the study of literature for its formal discipline rather than for its content. Compare with meaning of humanitas in Roman education.
2. Humanistic education made little use of the physical and the sociological or institutional factors in education; it neglected history, mathematics, natural science, and practical training for citizenship. Observe that science was not an organized subject at that time. Neglect in the use of it meant, therefore, neglect to develop it as a subject.
3. Foreign languages studied before the native tongue.
4. Memory strengthened.

HUMANISM IN ITALY

5. Discrimination of forms produced a dialectic power similar to that of scholasticism.
6. Corporal punishment an incentive to work.

Humanism in Italy

235. Pioneers.

1. Dante (1264 to 1321) combined the medieval and the modern spirit. Wrote *Divine Comedy* and *Inferno*.

2. Petrarch (1304 to 1374) was "the first modern man." He chose Cicero as master and developed a passionate fondness for Latin, not for its form alone, but largely for its spirit or content. This was realism two centuries in advance. He appreciated the beauty of literature, sympathized with the spirit of classical people and classical institutions, and transferred that beauty and spirit with all the fervor of his personality. His writings gave the Italian language the inheritances of classical times.

a. A Latin epic, *Africa*.

b. Italian *Sonnets*. •

c. *Letters*.

d. *Lives of Ancient Men*.

e. His masterpiece, *Decameron*, was the inspiration and source of Chaucer's *Canterbury Tales*.

3. Boccaccio (1313-1375). Zealous in recovering classical texts, in multiplying classical manuscripts, and in founding libraries.

4. Barzizza (1370 to 1431), noted scholar who worked with Petrarch and Boccaccio in recovering and reproducing manuscripts.

5. In 1396, Manuel Chrysoloras or Emanuel Chryso-

MODERN EDUCATION—1500 TO PRESENT

lauros, a Greek teacher in Constantinople, was so strongly influenced by the enthusiasm of the humanists that he settled in Florence and became famous as a teacher of Greek literature. In 1453, many other Greek scholars came to Italy and the University of Florence in particular became noted for intellectual activity in art, literature and music. Greek manuscripts were secured, Greek grammars were written, and Greek literature was open to zealous students who became missionaries in education for various parts of Europe. A Greek teacher was lecturing in the University of Paris in 1470, and the culture of Florence was taken to England by three scholars from Oxford—Grocyne, Linacre and John Colet.

6. *Æneas Sylvius* and *Guarino of Verona* aided in giving the new education definite form. Each taught in his own home and thereby developed a plan of instruction that supplemented the public teaching in the universities.

7. *Vittorino da Feltre* (1378 to 1446) was associated with *Barzizza*, *Sylvius* and *Guarino*. Taught at Padua and Venice, but his fame rests upon the school he founded at Mantua (1428) in response to a call from the Prince of Mantua. This school was the first humanistic school distinct from university departments, and, for this reason, he was called "the first modern schoolmaster." The royal school later accepted other pupils. Pleasure and activity were aims in "The Pleasant House," the name given to an entire palace used as a school building. The seven liberal arts, with literature predominating, formed the course of study; self-activity in play, esthetic appreciation and moral devel-

opment was the keynote. Self-government of boys, appeal to natural interests, and use of constructive instincts were features far in advance of other systems. Harmonization of Greek and Roman merits under Christian culture sought to prepare pupils for direct service in life.

8. Schools of the Court were developed under the patronage of monarchs and the nobility. Wandering scholars were employed to teach, and the rival of states or cities was a stimulus to excellence in disseminating the new learning. Florence, Verona, Venice, Padua and Pavia became famous.

9. Aldine Printing Press. The first original book printed in Italy was a Greek grammar, in 1476. In 1472, an edition of Vergil was printed in Florence; and, within thirty years, Europe had ten thousand books and pamphlets.

10. Libraries. Enthusiasm in collecting manuscripts made the foundations for libraries. The collections of Niccolo Niccoli were given to Florence and Pope Nicholas V secured five thousand manuscripts for the Vatican library.

Humanism in Holland and Germany

236. Brethren of the Common Life, or Hieronymians.

1. Founded about 1380 at Deventer, Holland, by Gerhard Groot. More than one hundred fifty schools in Flanders, France and Germany before middle of fifteenth century.

2. Opposed to scholasticism, interested in mother-tongue and direct study of the Bible. Purpose was to give religious instruction to poor children, but later work included broad course of study. The members became enthusiastic students of grammar, rhetoric, literature, Greek and Hebrew. Their teaching inspired their students with scholarly zeal.

3. Their work and constitution formed a suggestive model for the Jesuits.

4. Famous pupils.

Wessel

John Wessel (1420 to 1489). Studied in Cologne, Paris and Rome after leaving Deventer; scholar in Greek, Latin and Hebrew; taught Agricola and Reuchlin.

Hegius

Alexander Hegius (1420 to 1498), famous as a student of Greek and the Bible; master of the gymnasium at Deventer for thirty years.

Wimpfeling

Jacob Wimpfeling (1450 to 1528) was lecturer and rector at Heidelberg. His fundamental principle was that "the better education of the young is the foundation of all true reform, ecclesiastical, national, and domestic." Author *A Guide to the German Youth*, the first pedagogical treatise written in German.

ERASMUS

Thomas à Kempis

Author of *Imitation of Christ*.

237. Rudolph Agricola. (1443-1485.)

1. Studied in Italy; teacher at Heidelberg.
2. Prepared northern countries for humanism.
3. Made some progress in the study of Hebrew.

238. John Reuchlin. (1455-1522.)

1. Studied classics in Paris; teacher at Heidelberg.
2. Introduced Greek into Germany.
3. Champion of Hebrew.
4. Textbooks.
 - a. *Hebrew Grammar and Lexicon.*
 - b. *Latin Lexicon.*
 - c. Manuscript for Greek grammar.

239. Desiderius Erasmus. (1467-1536.)

1. Born at Rotterdam, attended school at Deventer, studied at universities of Paris and Turin. Traveled extensively and everywhere influenced students to take up the new work. Died in Basel, Switzerland.
2. "When I get money I will first buy Greek books and then clothes."
3. Translator, writer, publisher.
4. Translated Greek works into Latin. Printed first edition of New Testament in Greek.
5. Educational writings.
 - a. *Praise of Folly: a Satire on Scholasticism.*
 - b. *Colloquies: Instruction in Latin and Morals.*

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- c. On the Order of Study.*
- d. Of the First Liberal Education of Children.*
- 6. Pedagogy.
 - a. The mother is the natural educator.*
 - b. Morals, manners, and choice use of language till seven.*
 - c. After seventh year, Latin and Greek studied together.*
 - d. Utilize activity of child. See Froebel.*
 - e. Adaptation, interest, and thoroughness.*
 - f. Avoid brutal discipline.*
 - g. Objective method.*
 - h. Cultivate memory (a) by understanding subject, (b) by logical thinking, (c) by comparison.*
 - i. For girls. (a) Cultivate religious feeling; (b) protect from contamination; (c) keep from idleness.*

The Protestant Reformers

240. Martin Luther. (1483-1546.)

- 1. Founder of Protestantism.
- 2. Translated the Bible into German; aided German language.
- 3. Founded German common school system.
- 4. Educational aim was conformity to culture.
 - a. Use ancient languages.*
 - b. Use history, music, mathematics and physical training.*
 - c. Practical value of training in rhetoric.*
 - d. Established public libraries.*

5. Pedagogy.

- a. Parents responsible for education. Firmness and love in the home.
- b. Compulsory attendance under jurisdiction of state.
- c. Religion; natural methods; trades.
- d. Trained teachers, pedagogy for ministers.
- e. His conception of education embodied the ideas exemplified today in the Prussian school system, namely, a system that is national, universal, compulsory.

Observe that Luther used some subject-matter not included in the humanities.

241. Melanchthon. (1497-1560.) Saxony School Plan.

1. Called the preceptor of Germany. Luther's friend. Made Protestantism acceptable to men of letters.
2. A teacher. Lecturer on Old and New Testament, ethics, logic, physics, and classical authors.
3. A school organizer. The Saxony School Plan.
 - a. Not too many studies; Latin the only language.
 - b. Not too many books.
 - c. Three grades for primary schools.
4. Author of text-books on Greek and Latin grammar, logic, rhetoric, ethics and Hebrew.
5. "Through his formulation of the Visitation Articles of Saxony in 1528 he became the founder of the modern public school system." (Monroe, p. 416).

242. Johann Sturm (1507-1589). Classical High School Course.

1. Organized Strasburg Gymnasium and remained its master for forty-seven years.

2. The originator of the classical high school system.
3. Latin and Greek; no German, history, mathematics or science.
4. Method, double translation. Translate Latin and Greek into German and later translate back into Latin and Greek.
5. The first extended well-articulated course of study.
6. Child at home till six; 6-16, Latin, six years of Greek, some rhetoric, logic, music and religion; 16-21, college work. All the periods covered by organization into ten classes. Language the basis of the system; pure humanism.

Sturm's school was a type of humanistic schools called *gymnasien* in the early periods but called *gymnasium* in latter part of the sixteenth century. The *gymnasien* developed from the higher burgher schools and became the distinctive classical schools that prepared for university courses. Classical Latin, classical Greek, literature, mathematics and, in many cases, Hebrew were the principal subjects. Later development held the *gymnasium* as a classical school distinct from the real school which stood for science and modern languages. The *gymnasien* were under control of municipal governments.

243. Trotzendorf. (1490 to 1556.) Self-government.

1. A teacher at Goldberg thirty-five years.
2. Latin and Greek like Sturm's course; pupils recited in Latin.
3. Conversation, concrete methods, illustrations.
4. Student self-government.

244. Neander. (1525-1595.) Geography, History, Science.

1. Pupil of Melanchthon.
2. Teacher at Ilfeld forty-five years.
3. Knew Latin, Greek, chemistry and medicine.
4. Favored geography, history, natural science.
5. Author of Latin and Greek text-books.

Furstenschulen, or schools for princes, were organized in the sixteenth century for the education of boys of the nobility. Controlled by courts.

Humanism in England

Grocyn, Linacre, John Colet, Thomas More, Roger Ascham, Erasmus.

Humanism was introduced into England by three men who were imbued by the new spirit as a result of study in Florence, Italy. Those men were William Grocyn and Thomas Linacre from Oxford University and John Colet from Cambridge University. They welcomed Erasmus to Oxford in 1498 and aided him in his work at Cambridge from 1510 to 1513.

John Colet (1466 to 1519)

Lectured at Oxford on St. Paul's Epistles; founded St. Paul's School in 1519 and systematized humanistic studies for secondary schools.

Sir Thomas More (1478 to 1535)

1. Son of a lawyer in London.
2. Attended St. Anthony's School where Colet and Latimer were pupils.

HUMANISM IN ENGLAND

3. Trained by Cardinal Morton, Archbishop of Canterbury.
4. At Oxford. Studied Greek under Linacre and became acquainted with Grocyn, two English humanists who studied in Florence. Familiar with Latin, French, history, mathematics and music.
5. Met Erasmus in England in 1497 and received the first inspiration from him. Strongly influenced by many humanists whom he became acquainted with in Northern Europe.
6. Wrote *Utopia* in Latin and it was published in Louvain in 1516. *Utopia* describes an ideal country free from abuses of the Old World. The educational views favor the liberal arts including Greek, the use of the vernacular, physical exercise including agriculture and trades, riding and military exercises, plenty of sleep, moderation in eating and drinking.
7. More's influence in favor of the new learning was strong in England.
8. Beheaded by Henry VIII in 1535.

Roger Ascham (1515 to 1568)

1. Teacher of Greek in Cambridge.
2. Tutor of Queen Elizabeth.
3. Method. Double translation: Latin to English, then English to Latin.
4. Wrote the *Scholemaster*, the first treatise on education in English.

MODERN EDUCATION—1500 TO PRESENT

Public Schools of England

The public schools of England became numerous on account of the humanistic revival. Winchester (1387) and Eton (1440) existed before the Renaissance, but the model was St. Paul's School, London, founded by Colet in 1512. The first master of that school, William Lilly, is still cited as authority on Latin grammar. The other public schools were developed out of nearly three hundred monastic or church schools which were suppressed by Henry VII (1509 to 1547). Those schools were reconstructed according to humanistic ideals. Nine of the public schools are recognized as great: Winchester, Eton, St. Paul's, Westminster, Harrow, Charter-House, Rugby, Shrewsbury and Merchant Taylors'.

The public schools were supported by private contribution or royal endowment, independent of church and state. Pupils were required to pay tuition.

Humanism in America

The colonial grammar schools followed the type of English public schools, but support was given by the colonies, not by private endowment. See later chapter for development of schools in United States.

CHAPTER XXI

THE JESUITS—CATHOLIC COUNTER-REFORMERS

The Protestant Reformation under the leadership of Martin Luther had definite educational significance as shown in connection with humanism in Germany (section 240). Now we shall consider the educational work of the Jesuits, a teaching congregation organized to defend the Catholic Church in religion, education, and all other interests of mankind. The movement is known as the Catholic Counter-Reformation because the avowed purpose was to oppose the Protestant Reformation.

The Jesuits

245. Founder.

Ignatius Loyola, born in 1491 at the castle of Loyola in Spain. Entered the army, wounded at Pampeluna (1522); during convalescence he read the *Lives of Jesus* and the *Saints* and decided to become a soldier of the cross; a pilgrim to Holy Land (1524); at study (1524 to 1535); received papal charter for society (1540); drew up Constitution of Order (1550); died 1556.

246. Designation.

A teaching congregation organized to combat Protestantism. Won back one third of Protestant Europe.

MODERN EDUCATION—1500 TO PRESENT

247. Aims.

1. To be the best teachers.
2. To be the best preachers.
3. To be the best confessors.
4. Motto, "To the greater glory of God."
5. Their course of study was called *Ratio Studiorum*, or *System of Studies*. Planned by a committee under Claudius Aquaviva and adopted in 1599. Intended for secondary schools and collegiate courses, not for primary classes.
 - a. *Studia Inferiora*, or lower grade, corresponded to the *gymnasien*. Arithmetic, history, natural science, religion.
 - b. *Studia Superiora*, or college course. Ancient classics, philosophy, theology.

248. Criticism.

1. Most efficient system for three centuries.
2. Professionally trained teachers; adaptation to individual powers of pupils; excellent discipline.
3. Authors, learned men, zealous missionaries.
4. Primary education neglected.
5. Use of emulation through rivalry is adversely criticized.
6. Method of teaching Latin is excellent in developing habits of study.
 - a. Prelection, or going over advanced lesson with class.
 - b. Repetition, the actual recitation in class after prelection and study.
 - c. Disputation, or debate as a means of review and public expression.

THE JESUITS

7. Thoroughness. Daily, weekly, monthly and yearly reviews.

249. Organization.

The Society of Jesus is itself an example of the value of organization. Under no other plan could such effective results have been attained.

The sixteenth century is strong in the tendency toward organization: Saxony School Plan; High School Classical Course; Ratio Studiorum; Neander's Student Self-Government. Sturm organized *one* school; the Jesuits organized *all* high schools—a system.

CHAPTER XXII

REALISM; 16TH CENTURY EDUCATORS

250. Meaning.

Realism in education is the name given to that tendency in which natural phenomena and the practical realities of life became the subject-matter for study in place of Latin and Greek. It was a utilitarian tendency. In its later development some of the realistic studies were natural science, geography, history, art, French and German.

251. Humanistic realism.

Pure humanism exalted Latin and Greek for their disciplinary value, but humanistic realism took a broader view by using those two languages as a means of learning how to live better through knowing the lives of the ancients. Linguistic content was made more valuable than form. Thus education became an appreciative study of classic literature. Representatives, Rabelais and Milton.

252. Social realism.

This view of education rejected humanistic training as a worthy preparation for real life, and insisted upon direct, practical education through experience. Representative, Montaigne.

253. Sense realism.

Knowledge comes through the senses. This conception of education was a development from the other forms of realism. Best represented in the seventeenth century, it embodied the leading principles of modern education. Mulcaster, Bacon, Comenius, Ratke.

Rabelais (1483 to 1553), French Realist and Satirist

254. Life.

An expelled monk, a pastor, a physician, a universal scholar. Ridiculed all these in his satire.

255. Writings.

A series of chronicles, the first called *Gargantua*, the second called *Pantagruel*.

256. Nature of his writings.

Destructive rather than constructive. He ridiculed existing conditions but did not go ahead and improve them. *Gargantua* was a satire on previous systems of education, especially on scholastic education. The giant Gargantua represents the old education, while the page Endemon typifies the new realistic education for the world. In conversation, the intelligence, courtesy and self-control of the page causes Gargantua to "cry like a cow and hide his face with his cap."

257. His course of study.

1. Practical substance of the seven liberal arts.
2. Latin, Greek, Hebrew, Chaldaic, Arabic.
3. Mathematics, astronomy rather than astrology, history, civil law, philosophy.

REALISM; 16TH CENTURY EDUCATORS

4. Exact study of nature through *observation* and other *objective methods*: seas, mountains, fishes, herbs, minerals, etc.; acquaintance with the arts and trades by visiting workshops.
5. "In brief let me see thee an abyss and bottomless pit of knowledge."

258. Pedagogy.

1. Health. Games and sports for physical development.
2. Interest. Studies made pleasant; interest rather than compulsion.
3. Thing rather than words. The realities of life rather than formal literary education.
4. Mild discipline.
5. Private tutor better than public teachers.

259. Influence.

Not much concrete influence upon schools but a great stimulus to educational writers like Montaigne, Locke and Rousseau.

Montaigne (1538 to 1529), French Essayist

260. Series.

It is frequently said that Rabelais, Montaigne, Locke and Rousseau form a series. Note the development of similar lines of thought. What evidence of realism in Montaigne?

261. Writings.

1. *Essays on Pedantry*, showing the aim of education.
2. *Instruction of Children*, showing method in education.

262. His view.

He condemned the schools of his time and of prior ages for the use of force in intellectual, moral, and physical education. To him, education meant a frank preparation for a practical, serviceable, successful and happy career of a man of the world.

263. Social realist.

This aim of education puts Montaigne into a class by himself as a social realist. He censures the show of learning exemplified by the humanists. He stands for a knowledge of things as ideas and so he is not a humanistic realist; he advocated training the senses in contrast to the formal humanistic training but not in the extreme concrete manner advocated by the sense realists; he was not a naturalist like Rousseau, because contact with the world through experience was emphasized by Montaigne.

264. Pedagogy.

1. Private tutor required.
2. Health. Physical exercise needed. No coddling or spoiling by foolish parents; the boy must be hardened to endurance.
3. Environment. Make schools cheerful.
4. Interest. Desire for study is most important.
5. Discipline. Use a kind of severity but not punishment and compulsion.

265. Studies.

1. Courtesy: elegant manners.
2. History gives judgment and character.

3. Nature study: a means of judging true values.
4. Logic, physics, geometry, etc., as pupil desires.
5. French first; then other languages.

266. Methods.

1. Experience. Learn more from experience than from books.
2. Travel. To learn to know men.
3. Latin. Learn by conversation, not by grammars.
4. Learning by heart is not learning at all. Practice lessons rather than recite them; apply what is learned; prove every opinion, submit to no authority. Independence of thought is the most important object of education.

267. Naturalism.

The eighteenth century is associated with naturalism because the nature of the child was considered and physical nature of environment was used in the subjects studied and in the methods of teaching. Montaigne and Rabelais are sometimes classed as naturalists because they advocated adaptation of matter and methods to the nature of the learner's mind.

268. Theory.

Note the progress in the theory of education rather than in the practice.

Richard Mulcaster (1532 to 1611), England

269. Teacher.

Headmaster of Merchant Taylors' School 25 years and of St. Paul's School 12 years. Knowledge of Latin, Greek, Hebrew, music and drama.

270. Books.

The Positions. Description of principles of an efficient school system.

1. Individuality of child must be respected.
2. All classes must attend elementary school and learn reading, writing, drawing, music and physical training.
3. Vernacular first. Teach English well and then Latin.
4. Schools must have air, light and playgrounds.
5. Public education is far better than private tutoring.
6. Professional training of teachers. Establish training colleges at the universities to rank with schools for clergymen, physicians and lawyers. In this and some other points he was three centuries ahead of his time.

The Elementarie. Strong plea for the mastery of English. Discussion of origin of language, orthography, language reformers; rules for orthography and composition.

271. Aim of education.

“The end of education and training is to help nature to her perfection.”

Ramus (1515 to 1572), France

272. Life.

1. Petrus or Pierre de la Ramée born at Cuth, educated at University of Paris. Professor in College of France and later principal of College of Presles.

273. French language.

An ardent advocate for development of French language at a time when Latin was the language of scholars.

274. A reformer.

1. Tried to reform organization of the University by working for better teachers, better curriculum and better methods of teaching.

2. Tried to free the liberal arts from abstractness and needless difficulties. His principles for reform were (a) nature, (b) system, (c) practice. Nature should be the guide for clearness of subject-matter. Grammar, for instance, should be considered from actual usage of both ancient and modern writers and modern speech. Logic should be based upon the observation of the human mind, and natural sciences should be based upon the investigation of physical nature. System related to the arrangement of subject-matter, following most of the logic of Aristotle as his guide.

275. Author.

Undertook a revision of all the liberal arts. His publications include sixty-two works covering Latin, Greek and French, grammar, rhetoric, dialectic, mathematics, all natural sciences, ethics and theology.

276. Influence.

He directed attention to the value of clearness in organization and practice in application. "Few precepts and much use."

VIVES

Vives (1492 to 1540). Spain

278. Life.

1. Juan Luis Vives was born in Spain. Educated at University of Paris. Friend of Erasmus and Sir Thomas More.

2. Located at Bruges in Belgium. Lecturer in Paris, Louvain and Oxford Universities.

3. In 1523 he wrote a plan of studies for the daughter of Queen Catharine of England and he performed a similar service for the son of Mountjoy, the pupil and patron of Erasmus.

4. Considered one of the three noted scholars of the time. Erasmus and Budaeus were the other two. Vives was given the title, "The Second Quintilian."

5. He wrote *Institution of a Christian Woman*. The book applies the principles of the Renaissance and gives woman full rights of education. It retains the religious basis, rejects the use of medieval romances, favors manual training, introduces humanistic Latin, and exalts the ideal of domestic education. *The Introduction to Wisdom* gives precepts or maxims to guide the moral and intellectual life of the students. *De Disciplinis*, the greatest educational work of Vives, has seven books on the causes of corruption of learning during the Middle Ages and five books showing constructively how the work of education should be carried on. It is considered the greatest educational work of the Renaissance. Another book, *De Anima*, produced in 1539, is psychology, and its merit has given Vives the title of the "Father of Modern Psychology."

REALISM; 16TH CENTURY EDUCATORS

279. Ideals of teacher.

1. High scholarship to teach and to inspire.
2. Aptness in imparting knowledge.
3. Incorruptible morals as an example.
4. Paternal sympathy for pupils.

280. Methods of teaching.

1. Begin with pupil's experience: known to related unknown.
2. Inductive method in grammar. As strong an advocate as Francis Bacon.
3. Nature study through observation. (Compare Bacon.)
4. Use native language in explaining Latin.
5. Logical order distinguished from order adapted to child's mind.

Zwingli (1484 to 1532). Ulrich

Zwingli was a Swiss religious reformer. He favored elementary schools for all and general education in higher branches. He wrote *The Manner of Instructing and Bringing Up Boys in a Christian Way*.

John Calvin (1509 to 1564)

A reformer in religion. Organized a college at Geneva, Switzerland, and it became a type for Protestant schools in France and Germany.

John Knox (1505 to 1572)

Leader of Protestantism in Scotland, introduced parish schools into Scotland.

REALISM; 16TH CENTURY EDUCATORS

Summary of Progress for Sixteenth Century

1. Humanism revived classic literature, put it into form for use, and stimulated intellectual activity.
2. The Reformation stimulated the German language, promoted primary education, laid foundation of German common school system, and helped the idea of universal education.
3. Sturm organized the Classical High School course and used double translation in the mastery of languages. That was a new method in education. Latin and Greek into German, then German into Latin and Greek.
4. The Jesuits organized a High School system, made a course of study, and gave their teachers pedagogical training.
5. Realism demanded knowledge of practical living.
6. Rabelais directed attention to realism.
7. Montaigne stood for practical education, pleasant surroundings, conversational method in languages, mild discipline.
8. Ramus made learning practical and pleasant.

CHAPTER XXIII

THE SEVENTEENTH CENTURY

I. THE INNOVATORS OF THE 17TH CENTURY

281. Meaning.

An innovator is one who introduces a change, generally something new. These innovators developed the ideas of the sixteenth century realists. These are sense realists.

282. Reaction.

This century is called a period of reaction. It was a reaction against the exclusive use of Latin and Greek; a reaction in favor of *things* instead of *words*. Recall the tendency to give more attention to the substance of studies than to form, but observe the necessity of teaching both things and the names of things together. Reformers often make the mistake of rejecting much that is good as their zeal carries them along in the new work.

283. Outgrowth or development.

1. New literatures: Italian, French, German.
2. Geographical discoveries: America, Magellan's circumnavigation.
3. Scientific discoveries of Roger Bacon, the Franciscan monk, in the thirteenth century. Attention di-

PEDAGOGY OF INNOVATORS

rected to laboratory work in chemistry and physics.

4. Writings of Rabelais and Montaigne.
5. Work of Ramus and Mulcaster.
6. Inventions and discoveries in 17th century.
 - a. Galileo's use of the telescope, 1609.
 - b. Kepler's laws of planetary movements.
 - c. Harvey discovered circulation of the blood, 1616.
 - d. Guericke invented air-pump.
 - e. Newton's laws of gravitation.

284. Compulsory education.

In 1619 the Duke of Weimar made the first efficient compulsory education law for all classes. Must be in school 6 yr.-12 yr.

285. The Thirty Years' War (1618-1648).

This depopulated Germany and set her back two hundred years in character, intelligence, and morality.

286. The new efforts.

The conditions under 283-286 explain the need of new efforts. The attention of mankind was directed to the real things of life.

287. Pedagogy of innovators.

1. Things before words: concrete to abstract.
2. Sense instruction: visualization.
3. Begin with mother tongue: French, German, English, etc., before Latin and Greek.
4. Latin and Greek, part of advanced education.
5. Physical training.
6. According to nature. This principle is one of the broadest in education. Its meaning and applica-

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tion include the observed laws of nature in environment and the nature of children. To Comenius and other innovators, proceeding according to nature meant to conduct the educational process as you plant seed. Begin in the spring, prepare the soil, sow the seed, cultivate the growing crop and enjoy the harvest. Analogy gives a similar process in training the mind. Recall the formal steps of instruction advocated by Herbart—preparation, presentation, comparison, generalization, application or drill.

Rousseau, Pestalozzi and Froebel had another meaning for the expression “We must proceed according to nature,” and their notion is the present educational view. It means that we must proceed according to the nature of the child. We can’t teach the child percentage or proportion before his mind is ready to grasp them. The missionary can’t convert a heathen by preaching abstract sermons on truth, service, loyalty, etc. He must approach the abstract by personal, concrete examples of these virtues—truth, service, loyalty, etc. So the child, to know number in the abstract, must first count and measure things.

Ratke (1571 to 1635). Germany

Known as Wolfgang Ratich or Ratichius also.

288. Organizer.

Formulated the ideas of the new conception of education. Classed as realist and innovator.

289. Enthusiast.

An erratic wanderer seeking to sell his natural method for the quick mastery of languages. He agreed to teach any language in six months by the method of conversation and double translation. The method of conversation, or the direct method, is the leading one to-day.

Studied at Hamburg and Rostock, Germany; traveled in Holland, Belgium and other countries, wrote *Address to Princes* and *Methodus Nova*.

290. His pedagogy.

1. Everything according to nature.
2. One thing at a time.
3. Frequent repetition.
4. Nothing learned by heart; study thoughtfully.
5. Uniformity: everything taught in the same way.
6. Knowledge of the thing before the name of the thing. See Pestalozzi.
7. Everything by experiment and analysis. See Bacon's inductive method.
8. Corporal punishment only for obstinacy and evil ways, not for failure of learning.
9. Special teacher for each school.
10. Special schools for different languages.
11. Girls instructed by proper and skilful women.
12. Logic and rhetoric considered real studies; science not taught.

291. Influence.

Stimulated others by showing what could be done.

THE SEVENTEENTH CENTURY

Francis Bacon (1561 to 1626). England

292. Method.

Developed and applied the inductive method in instruction and in investigation. Educational work undertaken after failure in public life. With equipment of education at Cambridge, he undertook to organize all knowledge.

293. Writings.

1. *Essays.*
2. *The Advancement of Learning.*
3. *Novum Organum.* In this appears his Inductive Method, which requires the student to experiment, investigate, verify.
4. *Instauratio Magna*, an encyclopedia of knowledge.

294. Title.

Sometimes called the Father of Modern Science, a title which belongs to Aristotle. Bacon did show how to use the inductive method in elementary science and other subjects in which pupils can observe experiments and formulate rules, definitions or laws; but Aristotle wrote on induction two thousand years before Bacon's time. Aristotle concluded that induction is uncertain because we cannot be sure that subsequent experiments will produce results the same as the observed results. In other words, we cannot judge the future by the past and the present. Aristotle favored deductive method because the conclusion must be true if the two premises of the syllogism are valid. Bacon said the deductive method may train formal reasoning, but it cannot lead to new knowledge.

COMENIUS

Induction and deduction may be illustrated in teaching definition of noun. Under the inductive method, the teacher directs attention to the several name words in five or more sentences and associates the word noun with each name word. After a few such observations, pupils make the definition of noun. Under the deductive method, the pupils learn the definition of noun first and then proceed to pick out the nouns in several sentences. Both methods should be combined in a complete lesson as shown in section 208, page 92, of McEvoy's *Methods in Education*.

295. Influence.

His ideas aided Comenius, Locke, Rousseau, Pestalozzi and others.

John Amos Comenius (1592 to 1670)

296. Moravian.

Born at Moravia, Bohemia; a member of Moravian Brethren, or Ancient Unitas Fratrum, an organization characterized by missionary zeal and effectiveness in education and religion.

297. Observer.

Minister and bishop in the Moravian church; teacher, exile in Poland, student of all conditions affecting life. Disgusted with schools and methods of his time, he determined to unify agencies producing human welfare. No class distinctions recognized by him.

298. Author of text-books.

a. *Orbis Pictus*, an illustrated text-book.

b. *Gate of Tongues Unlocked*: eight thousand Latin words associated with things. A method of teaching.

c. *Great Didactic*. Principles of teaching.

299. Organizer of an educational system.

The school system in four periods of six years each.

1. From 1 to 6. Infancy, mother school. Religion, morals, sense training, language. Compare kindergarten.
2. From 7 to 12. Boyhood, national school. Mother tongue, catechism, singing, arithmetic, geography. Compare elementary school.
3. From 13 to 18. Adolescence, gymnasium or Latin school. Substance of seven liberal arts modified to meet needs of time.
4. From 19 to 24. Youth, university. Advanced courses according to development of science at that time, language, history, etc.

300. Originator of principles and methods of teaching.

See *Great Didactic*.

1. According to nature.
2. Present everything through the senses.
3. Simple to complex, near to remote, easy to difficult, from known to related unknown, to teach from things and not about things.
4. Make learning pleasant by selection of material, by adaptation, by illustration.
5. Eliminate all that is useless. Learn to do by doing.
6. One language at a time and each language learned by conversation and application to things.

THE SEVENTEENTH CENTURY

7. Importance of example by parents, nurses, teachers and associates.

301. Method.

The method *according to nature* was analogous to the processes in physical nature. As there is an appropriate time for preparing the soil, planting the seed, cultivating and harvesting, so there are likewise appropriate times and methods in education of children.

302. Influence.

He put existing theories into definite and practical form. He organized a school system, outlined methods and principles, and prepared text-books for pupils and teachers. A valuable preparation for all later efforts in education.

John Milton (1608-1674). England

303. Book.

Published *Tractate on Education*, 1644.

1. Objected to formal grammar and formal composition.
2. Objected to formal language; content of language more important than form.
3. Favored practical efficiency.
4. Favored language as a means of expression, physical training, literature as source of life duties, and pleasant effort leading to development of pupils.

304. Definition of education.

"I call, therefore, a complete and generous education that which fits a man to perform justly, skilfully, and

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magnanimously all the offices both private and public of peace and war.”

305. Aim.

The aim of learning is to repair the ruins of our first parents by regaining to know God aright.

306. Scheme.

Outlined a scheme of education so broad that it is impossible to satisfy it. In content it was the broad humanistic conception; in the method and purpose of the use of that content, it was realistic.

307. Literature.

Paradise Lost and *Paradise Regained*.

Fénelon (1651-1715). France

Education of Women

308. Life.

1. A Catholic priest.
2. Archbishop of Cambray.
3. Teacher in convent of New Catholics; and in 1669 tutor of the young dukes of Burgundy, Anjou, and Berry, grandsons of Louis XIV.

309. Book.

While teaching in the convent of New Catholics, a school for young women reclaimed from Protestantism, he wrote his famous book, *Education of Girls*.

310. Views on female education.

1. Women intellectually weaker than men; therefore strengthen them by education.

2. Women control morality of world.
3. Education overcomes vices due to idleness.
4. Use literature, history, religion.
5. Utilize curiosity of children.

311. Indirect instruction.

Fénelon showed how to use the story in education. As shown in the following section, he prepared books for his pupils, the young dukes. He put history into the form of story or fable to make the matter interesting, and the study of such pleasing matter produced two results, one direct and the other indirect. The direct instruction was the content or subject-matter of history; the indirect instruction was the moral notions formed.

As a method or device, indirect instruction combined instruction, interest, pleasurable effort and variety. Note how much pupils acquire by reading, hearing, observing and imitating, aside from the direct points in the recitation. All outside of the direct aim of the lesson may be indirect instruction.

312. Books for indirect instruction.

Theory of indirect teaching was applied in Fénelon's text-books.

1. *Telemachus*, facts from Homer.
2. *Dialogues of the Dead*, history taught by having historical characters appear and converse.
3. *Fables* moral and mental lessons for his pupils.

313. Summary.

1. Greatest Catholic educator of 17th century.
2. Indirect instruction: story methods in teaching.

THE SEVENTEENTH CENTURY

3. Discipline, mild; develop better tendencies.
4. Make use of curiosity. See Bacon, Comenius, Pestalozzi for agreement.
5. Used principles of Innovators.
6. Strong supporter of public education under control of the state.

II. THE TEACHING CONGREGATIONS

The Oratorians. France. A Teaching Order

314. Foundation.

In 1611, in imitation of Congregation of the Oratory founded in 1575 by St. Philip Neri in Italy. A religious community of priests, not monks, organized to teach candidates for priesthood. Extended teaching to include secondary education. Chief colleges at Dieppe, Mans and Juilly.

315. Principles.

1. Obedience to their organization.
2. Absence of militant and political spirit of Jesuits.
3. Liberal, Christian education to produce intellectual freedom.
4. Use literature, history, science.

316. Contributions to education.

1. The use of the vernacular (mother tongue—French, German, etc.) and the exclusion of Latin until the fourth term.
2. Geography and history correlated. History made important; French history before classical history.

PORT ROYALISTS

3. Improved methods in Latin and Greek. Vernacular used in each; oral expression more important than written themes.
4. Physics, chemistry and philosophy taught.
5. Discipline was gentle. Monitorial assistance employed. The same professor took a class through from the first term to philosophy.

317. Representatives.

1. Lamy and Thomassin, teachers and philosophers.
Lamy's Conversations on the Sciences.
 - a. Begin study with logic.
 - b. Combine logic and mathematics. See Ramus.
 - c. Interlinear translations.
2. Mascaron and Massillon, preachers.
3. Malebranche, philosopher.

Port Royalists (1637 to 1661). France. A Teaching Order

318. Reaction.

Against the theology and the methods of the Jesuits. The order known as Jansenists also.

319. Members.

The community was a brotherhood of distinguished men—clergymen and laymen—who gave themselves up to a kind of monastic life under the guidance of St. Cyran. Petites Écoles, or Little Schools, founded by St. Cyran.

320. Conception of education.

Child's nature wholly evil; education must eradicate this and replace it with religious spirit.

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321. Aims and methods.

1. Five or six pupils to each teacher; always with teacher; individual influence.
2. Begin with French, and through French learn Latin.
3. Moral training through literature instead of language.
4. Content vs. form: teach only what children can understand.
5. The Jesuits used emulation to replace compulsion and fear of physical violence; the Port Royalists rejected all rivalry and emulation, and depended upon love of pupil through affection and religious zeal of teacher. Result, pupils often indifferent.
6. Alphabet method replaced by phonic method in spelling.
7. Objective methods formulated and applied.

322. Text-Books.

1. *Port Royal Logic*. Practical treatise.
2. Objective teaching followed as a principle.
3. Useful text-books.

323. Teachers.

Nicole, Lancelot, Rollin.

324. Famous pupils.

La Fontaine, Pascal.

The Christian Brothers (1682). France. A Teaching Order

325. Founder.

St. John Baptist de la Salle (1651 to 1719), a priest.
The members of the Institute of the Brothers of the

THE CHRISTIAN BROTHERS

Christian Schools are not priests, nor can they become priests.

326. Aim.

The Brothers of the Christian Schools sought to do for elementary education and the working people what the Jesuits had done for secondary education and the higher class of people. In more specific terms, their object is the education of youth, the cultivation of letters, and the diffusion of knowledge. Their system includes colleges, technical and industrial schools, commercial colleges, elementary schools, grammar schools, high schools, asylums and protectorates.

327. La Salle's book.

The Conduct of Schools. Its scope includes all that is usually deemed essential in both theory and practice in school administration. It is a notable production on account of comprehensiveness of treatment, clearness and precision in style, practical adaptation to existing needs of pupils, teachers and communities. Following are some of the topics treated :

1. Basic principles.

- a. Man is a rational being, composed of body and soul.
- b. Children are as weak from the viewpoint of intelligence and volition as they are in their physical faculties.
- c. To correct a defect or vice, man should make frequent acts of virtue opposed thereto.
- d. The senses, having a large share in the operations of the intellect, should be carefully cul-

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tivated. Hence the necessity of developing the intellect, of rectifying the judgment, of educating the will, and of forming the heart to virtue.

2. Specific directions for physical, intellectual and moral education.
3. Qualifications of teachers: physical, intellectual and moral. The virtues of a good teacher are gravity, silence, discretion, prudence, wisdom, patience, reserve, gentleness, zeal, vigilance, piety and generosity.
4. Laws of education.

328. Contributions.

1. Organization and management of elementary schools.
2. Simultaneous teaching, i. e., class teaching by which all the pupils receive the same lesson at the same time from the same teacher.
3. The grade school, the forerunner of the present graded schools.
4. First normal school for secular teachers, Rheims, 1685.
5. The Christian Academy or Sunday school, in which architecture, drawing and geometry were taught (Paris, 1698).
6. Technical schools with courses such as the schools of technology have to-day.
7. The Reform School (Saint-Yon, Rouen, 1705). Compare protectories for boys or girls.
8. Lasting improvement of primary methods, primary schools, and the public school system.

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John Locke (1632-1704). England

329. Life.

1. From Puritan stock.
2. Six years in Westminster and then Oxford. Studied medicine, but was not graduated as physician.
3. Associated with royal families, held public office. Some experience as tutor and companion of boys.
4. Lived in Holland six years, traveled in other countries.
5. Influenced by Montaigne; Rousseau influenced by Locke.

330. Process.

The process of learning, not the thing learned, is important. At first the mind is a blank, and its powers must be developed from the outside through the formation of habits.

This exaltation of process brings up the doctrine of formal discipline in education. This doctrine "asserts that mental power developed in one subject is usable in any other." (Horne, *Principles*, p. 66.)

This theory brings up two phases of daily teaching, form and content of matter. The historic theory held that it does not matter what is studied, provided it is studied rightly. This is the doctrine of power in education; and, as Horne says, power applicable to any task that is assigned to us. Modern opinion exalts content, since interest is attached to matter related to life. The object of interest is present, not in the distant future.

Criticism of formal discipline and its advocates is made by stating the present or modified view in this

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way: "Mental power developed in one subject is applicable to any other in direct proportion to their similarity. This principle means the greater the similarity between two subjects the greater the applicability of mental power developed in one to the other; the less similarity, the less applicability." (*Principles*, p. 71.)

331. Kinds.

Education is physical, moral and intellectual; and so the corresponding aims are vigor of body, virtue and knowledge.

332. Writings.

1. *Essay Concerning Human Understanding*.
2. *Thoughts on Education*.

The *Essay Concerning Human Understanding* is among the most important books in the development of modern thought. It is an exposition of empiricism, or the value of personal experience in producing valid knowledge. It made inquiry "into the originals, certainty and extent of human knowledge; how far the understanding can extend its view, how far it has faculties to extend its certainty, and in what cases it can only judge and guess." The result of this inquiry was the statement that knowledge is limited to the ideas gained through the senses and the relations discovered by comparison, discrimination and reflection. Knowledge can extend no further, therefore, than our own experience.

Locke's *Thoughts on Education* originally consisted of personal letters to Edward Clarke about the training of Clarke's son. The opinions show keen observation rather than technical experience as an educator. Habits

of efficiency under moral conduct of a gentleman are the desirable ends. Other thoughts are given in the following sections.

333. Pedagogy.

Speaking of essential principles, he says: "These are: (1) in physical education, the hardening process; (2) intellectual education, practical utility; (3) in moral education, the principle of honor, set up as a rule for the free self-government of man."

Leading Thoughts

334. Intellectual education.

1. Universal education not favored. See Alfred the Great.
 - a. Education for sons of gentlemen.
 - b. Working schools for sons of laborers.
2. Private tutor preferable to public schools. Danger from association with other pupils.
3. Foreign travel a part of education.
4. Concrete or objective method for alphabet, geography, etc. Use senses.
5. Latin and French. Learn by conversation or inter-linear translations. No writing of Latin verses. See Montaigne.
6. Music and poetry. None; each leads to bad associates.
7. Memory. Learn short, interesting passages that are clearly understood. Thoughts vs. words. Rote learning of grammar is wrong.
8. Manual training. At least one trade for gentlemen.

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335. Physical education.

“A sound mind in a sound body.”

9. Recommendations: “Plenty of open air, exercise, and sleep, plain diet; no wine or strong drink, and very little or no physic; not too warm and strait clothes, especially the head and feet kept cold, and the feet often used to cold water, and exposed to wet.”
10. Criticism. The hardening process by means of holes in boots, thin clothing, hard fare, etc., is condemned by Spencer.

336. Moral education.

11. Leave to children, aside from fortune, (*a*) virtue, (*b*) prudence, (*c*) good manners, (*d*) instruction.
12. Great principle is “that a man is able to deny himself his own desires.” Self-mastery.
13. Practice self-denial from infancy up. Establish parental authority without severity.
14. Corporal punishment. None except for stubbornness and disobedience.
15. Rewards and punishments should be of the mind,—esteem and disgrace. Open praise, private censure. Reason with children. Develop honor.
16. Habituate pupils to cheerfulness, pleasure and industry.

337. Locke's contribution.

Thoughts on Education is classed as one of the best works on the theory of education. Defective in not providing for the education of all classes; valuable in making specific proposals in both theory and practice; a strong link in the series from Rabelais to Froebel.

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338. Summary of Seventeenth Century.

1. Utility in education.
2. Modern science encouraged.
3. Care of the body: physiological education.
4. Less use of the classical studies.
5. Principles of modern education formulated.

CHAPTER XXIV

THE NATURALISTS OF THE 18TH CENTURY

340. Naturalists were innovators.

The educators of the eighteenth century were exponents of the developed realism of the sixteenth century. They were both realists and innovators; and so, too, the nineteenth century educators will represent the cumulative result of all that was best in the three preceding centuries.

341. Revolution.

Civil and political unrest during this period: French Revolution. Desire for other and better organizations.

342. Educational efforts.

1. Pietism and Francke.
2. Real School movement.
3. Philanthropin and Basedow.
4. University reform under Rollin.
5. Emile and Rousseau.
6. Kant's philosophy.

I. Francke and the Pietists

343. Reaction.

Reaction in Protestantism against the Lutherans. More faith and less ceremony in religion. Real studies and German vs. classical course.

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344. Halle.

University at Halle founded 1691 under Spener.

345. Francke. (1663 to 1727.)

Francke called to teach Greek and Oriental languages. Remained thirty-six years.

346. Institutions at Halle.

1. Easter 1695, received \$2.80. Opened free school and citizens' school.
2. Orphan asylum and schools.
3. Pedagogium for teachers.
4. Established a Real School.
5. Theological school.

347. Results.

1. Social and educational organization.
2. Unification and application of best educational theories.
3. Spread of enthusiastic spirit by students.

II. Real Schools and Normal Schools

348. Real Schools.

By some, credited to Francke; by Monroe (p. 498), to Johann Julius Hecker, a pupil of Francke. School organized 1747 at Berlin. Taught German, French, Latin, writing, drawing, history, geography, geometry, arithmetic, mechanics, architecture, religion and ethics. The Real School prepares for practical life; the Gymnasium prepares for learned professions. Compare modern technical schools.

The pedagogium at Halle opened the way to normal

schools. Frederick William I of Prussia is given credit for opening a teachers' seminary at Stettin in 1735 with one of Francke's men in charge. (Compare Rheims, 1685, Christian Brothers.) Hecker added a normal department in Berlin in 1748, and this was adopted as a state institution by Frederick the Great. The first of these schools to be known as a normal school was in Vienna in 1771, a school similar to American normal schools. The system was extended rapidly in Austria, while Germany extended her system of training schools. In 1738, Gesner made an effort in university instruction in pedagogy by opening a course at Göttingen University.

*III. Basedow (1723 to 1790) and the Philanthropin.
Germany*

349. Inspired by Émile.

Salzmann and Campe, associates. Located at Dessau, where Ratke formerly taught.

350. Basedow's Writings.

1. *Elementary Book*, Elementarbuch, or Elementarwerk.
 - a. Illustrated book based upon Comenius, Bacon, and Rousseau.
 - b. Knowledge of things and words through natural phenomena.
 - c. Moral education.
 - d. Social, commercial, and economic affairs.
2. *Book of Methods*. The natural method or the method of experience.

351. The Philanthropin or Philanthropinum. (1774 to 1793.)

1. Aim to educate youth in accordance with the laws of nature and humanity. Philanthropic basis.
2. The school was non-sectarian. Germany not ready for this.
3. Emphasis upon training of teachers affected entire German school system.
4. The first recognition of manual training for its educational value.
5. Instruction from objects and pictures elaborated in actual practice.
6. Physical training and other aims of the innovators.

352. Value.

1. Literature for children. *The Swiss Family Robinson* by Campe.
2. Directed attention to more useful methods and results.
3. Prepared the way for Pestalozzi.

IV. Charles Rollin (1661 to 1741). France

353. Life.

1. Master in College du Plessis when he was twenty-one.
2. Professor in College of France from 1688 to 1736.
3. Three times Rector of University of Paris.
4. President of College de Beauvais from 1699 to 1712.
He put new life into the teaching, modified the curriculum, and raised the standard of collegiate education to the highest standard in France.

354. Reforms.

1. In studies. Real things as observed in geography and nature study; use of French in all subjects; history.
2. Methods. Articulation, pronunciation, correct use of words, interpretative grammar and language study; history used as means of forming intellectual and moral character; preparation of teachers to meet needs of pupils.
3. School management. Influenced spirit and results of all grades of schools.

355. Book.

Treatise on Studies. Advocated matter and method approved to-day.

356. Greek and Latin.

1. Little Greek; enough to read understandingly.
2. Master Latin and use French in doing so.

357. History.

1. Wrote *Ancient History*.
2. Purpose, to vindicate the ways of God to men.

358. Aims.

Matter and method again clearly presented. Training of the senses is fundamental.

1. Object lessons clearly described.
2. First definite plan of applying the ideas of Comenius and Locke.

359. Service.

Practical advance in course of study, school management, methods.

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V. *Rousseau (1712 to 1778). France*

360. **Life.**

Jean Jacques Rousseau was born at Geneva, Switzerland, June 28, 1712. Poor training, as mother was dead and father was bad. Gave away his five children to foundlings, and he was never able to recover them.

361. **Writings.**

1. *Confessions*: A revelation of himself.

2. *Social Contract*. As government is a contract among the people, government can be dissolved when the people disagree. This principle incited the French Revolution and also enunciated the principle in our Declaration of Independence.

3. *Émile*, a philosophical romance, not a formal treatise. Following is an excerpt:

“We are born weak, we have need of help; we are born destitute of everything, we stand in need of assistance; we are born stupid, we have need of understanding. All that we are not possessed of at our birth, and which we require when grown up, is bestowed on us by education. This education we receive from nature, from men, or from circumstances. The constitutional exertion of our organs and faculties is the education of nature; the uses we are taught to make of that exertion constitute the education given us by men; and in the acquisitions made by our own experience, on the objects that surround us, consists our education from circumstances. We are formed, therefore, by three kinds of masters. Of these three different kinds of education, that of nature depends not on ourselves; and but in a

certain degree that of circumstances; the third, which belongs to men, is that only we have in our power: and even of this we are masters only in imagination; for who can flatter himself he will be able entirely to govern the discourse and actions of those who are about a child?"

362. According to nature.

The proper education takes the child from his parents, from society, and from the schools, and he is put under an ideal tutor who directs him in contact with nature.

363. Meaning of nature in *Émile*.

"Everything is good as it comes from the hand of the Maker; but everything degenerates in the hands of man. Our education comes from nature, from man, from things. Harmonize these three and we have good education. Harmony in education is obtained by subordinating the education of man and of things to that of nature."

1. Nature is a habit, education is anything but a habit. Habit has two meanings: unaltered instinctive judgments or primary emotions and those altered by experience with mankind. The former, that is, *the primitive emotions or natural instincts*, are the ones according to nature.
2. In the social contract he describes the natural state of man as one founded upon a knowledge of the true nature of man, but not according to the society of the eighteenth century. The natural man is not the average man, but man governed and directed by the *laws of his own nature*. A

high state of culture could be secured on the ground of individual choice instead of that of arbitrary authority.

3. *Direct contact with the phenomena of nature* is the third meaning of the phase according to nature. The evil influences from associating with men are counteracted by associating with animals, plants, and physical forces of all kinds.

364. Negative education.

The prevailing opinion of human nature was that man was bad and education must supplant the badness by goodness. See Port Royalists. Rousseau held contrary opinion. *Education consisted not in teaching principles of virtue or truth, but in guarding the heart against vice and the mind against error.* By this he does not mean to reject all education, but to give an education of a different kind. He said: "I call a positive education one that tends to form the mind prematurely, and to instruct the child in the duties that belong to a man. I call a negative education one that tends to perfect the organs that are the instruments of knowledge before giving this knowledge directly; and that endeavors to prepare the way for reason by the proper exercises of the senses. A negative education does not mean a time of idleness; far from it. It does not give virtue, it protects from vice; it does not inculcate truth; it protects from error. It disposes the child to take the path that will lead him to truth, when he has reached the age to understand it; and to goodness, when he has acquired the faculty of recognizing and loving it."—From *Émile*.

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365. Application of negative education.

1. Physically, this doctrine agreed practically with Locke.
2. Intellectually, it gave little instruction until after the age of twelve. No reading, working or reasoning until that time.
3. Morally, it led to the doctrine of natural punishments or the discipline of consequences. This means that the child shall suffer the natural results of his own acts without the intervention of human beings to protect or to punish. With Rousseau, the educator might correct the child if it appeared to the child that the punishment came as a natural consequence without human interference.

366. Illustration of natural punishment.

“If the child is slow in dressing for a walk, leave him at home; if he breaks a window, let him sit in the cold; if he disobeys and gets wet, let him have a cold and be compelled to remain indoors; if he overeats, let him be sick; if he is indolent and will not perform tasks assigned, let him go without food that would come as a result.”

367. Limitations on natural punishment.

1. Value of such a principle depends upon connection of cause and effect; but as the child before twelve cannot reason, there is no moral instruction in such a process.
2. Under a sociological view of education the direct ef-

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fects upon one individual are not the only standard worthy of acceptance. The effect upon society may not be satisfied by the natural punishment of the wrongdoer.

3. Such experience would form the judgment of acts from consequences not from methods. No positive moral character from such effects upon childhood.
4. The ultimate results might be far beyond repair before the child would be old enough to understand the consequences.

368. Stages in education.

Though wrong in his divisions, Rousseau directed attention to the fact that the child has periods of aptitude in education.

1. From 1 to 5 years of age.
 - a. Father the natural teacher, mother the natural nurse.
 - b. Physical training free from customary restraints.
 - c. Excessive praise of sports, games, etc.
 - d. Little attention to intellect and morals.
2. From 5 to 12.
 - a. Negative education.
 - b. Natural punishment.
 - c. No intellectual training.
 - d. A natural training of senses through observing all his environment.
 - e. "He measures, weighs, counts, compares, draws conclusions, tests inferences, discovers the principles."

3. From 12 to 15. Period for the acquisition of knowledge.
 - a. Curiosity is the sole motive and the sole guide.
 - b. *Robinson Crusoe*, the text-book of life according to nature.
 - c. Émile learns a trade to show that he overcomes the prejudice against it. Manual training considered important.
4. From 15 to 20. Period for training the heart.
 - a. Educated for life and social relationships.
 - b. Love for others, the great motive.
 - c. Importance of adolescence in education.
 - d. Strictly moral and religious education. Name of God never heard before.

369. Education of women.

1. Sophia educated simply as a companion for Émile. This follows the fundamental doctrine of Rousseau, which stated that all education is for the individual.
2. "A woman of culture is the plague of her husband, her children, her family, her servants,—everybody."

370. Results or influence.

1. Education is a natural, not an artificial process.
2. It is a development from within, not an accretion from without.
3. It comes from the workings of natural instincts and interests and not through response to external force.
4. It is an expansion of natural powers, not an acquisition of information.

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5. It is life, it is not a preparation for future state, remote in interests and characteristics from the life of childhood.

371. Corollaries.

1. Education is a process of living that lasts all through life.
2. Natural, concrete, objective methods of teaching are required by the nature of the child.

372. Pedagogical merit of *Émile*.

1. Praiseworthy study of child nature.
2. Exalted the necessity of sense instruction and bodily health.
3. Definite insight into the child's point of view in learning geography, history and physics.
4. Education of girls is well treated in the fifth book.

373. Foundation of recent educational development.

1. The fundamental idea that education is a natural process gave rise to the psychological tendency in education.
2. Rousseau's teaching that educational material should be the facts and phenomena of nature, and an inquiry into various laws, is the basis of the scientific tendency in modern education.
3. Rousseau's teaching that education should aim to develop the virtues of the primitive man, that it should prepare the individual to live in a society where he should have relations to other individuals, is the basis of sociological tendency in education.

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4. In literature he stimulated the romantic movement of the eighteenth and nineteenth centuries.

VI. *Kant* (1724-1804)

374. German philosopher.

Representative of the psychological tendency in education. Influenced by Locke and Rousseau.

375. Teacher.

Professor of logic and metaphysics at Königsberg. In 1803, lectures published under title *On Education*.

376. Definition of education.

Education is the development in man of all the perfection which his nature permits.

377. Leading thoughts.

1. Chief interest is character development, a practical education combining the conduct and the training of the will.
2. Emphasized sociological duties of the individual.
3. Do not break the will but train it to yield to natural obstacles. Breaking means slavery; natural opposition brings tractableness. Direct influence upon Herbert Spencer. Traits of desirable character are obedience, truthfulness, sociality and candor.
4. Inculcated religious ideas as laws or duties, not as matters of memory or imitation.
5. Hinted at culture epoch theory.

378. Summary.

Kant's value lies in giving clear expression to fundamental points of view rather than in making a practical application of them.

379. Summary for 18th century.

1. Child study instituted.
2. Education is a natural process; development an ideal.
3. Matter must be adapted to the child.
4. Improved methods of teaching.
5. A period of definition, classification, and helpful experimentation.

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CHAPTER XXV

PSYCHOLOGICAL TENDENCY IN EDUCATION

I. Pestalozzi (1746-1827). Switzerland

Naturalist and Innovator

381. Biography.

1. Father died when Pestalozzi was five.
2. Narrow training at home and in school.
3. Émile awakened a desire for educational and social freedom.
4. From clergyman to lawyer; greater usefulness.
5. Farmer; failure and bankruptcy.
6. Asylum for poor at Neuhof. Another failure.
7. Eighteen years of poverty; writing books.
8. Schoolmaster; orphan asylum at Stanz; successful methods of teaching.
9. Primary schools at Burgdorf and Yverdun: success and fame.

382. Writings.

1. *Evening Hour of a Hermit*: educational maxims (1780).
2. *Leonard and Gertrude* (1781). Depicts ideal village life in Switzerland. Gertrude, a pattern for all mothers, properly trains her children. All

mothers may follow such principles and thus elevate peasant life.

3. *How Gertrude Teaches her Children* (1801). Practical exposition of his principles of teaching. Observation, i. e., the uses of the senses, is the foundation of education.
4. *The A B C of Sense Perception* (1801).
5. *The Book for Mothers* (1801).
6. *The Song of the Dying Swan* (1826).

383. Fundamental ideas.

1. Education an organic process. It is the harmonious development of all powers. Compare unfolding of physical nature according to eternal laws.
2. Psychological foundation for all education and instruction according to nature's laws.
3. The human mind is neither a tablet nor a vessel; it is a real, living power that unfolds according to its own laws.
4. Moral culture is the unfolding of the will through love, gratitude, and confidence, as seen in relation of mother to child.
5. Intellectual culture is the unfolding of the power of reason through habituation to use. Aim, clear concepts; starting point, sense perception; process, passing from percepts to concepts and then from concepts back to percepts.
6. Physical culture is the development of many-sided physical powers through habituation to use. (Self-activity again.) Aim: power, graceful carriage, and skill in handicrafts and arts; starting point, movement.

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7. Conditions of mind in education are spontaneity and self-activity.

384. Characteristic principles.

1. Enthusiasm: service to humanity.
2. Love: "maternal love is the first agent in education; a thinking love."
3. Sense experience. All knowledge comes from sensation plus observation and reflection.
4. Things before words: concrete to abstract.
5. Object lessons combining sense training and passing from concrete to abstract. Three means of getting clear concepts.
 - a. Language: exactness of speech in expression.
 - b. Form: observation; measuring, drawing, writing.
 - c. Number is always certain; language and form may be inaccurate; therefore arithmetic exalted.
6. Instructing is not amusing; exertion needed for knowledge.

385. Influence of Pestalozzi.

1. Purpose. Education of the masses is the chief means of social reform.
2. New meaning of education. Organic development of all powers of individual.
3. On means and methods.
 - a. Analysis of knowledge into simplest elements for adaptation.
 - b. Object lessons as intuitive basis for entire mental development.
 - c. Mental arithmetic exalted.

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- d.* Writing and drawing as means of expression.
(Visualization; motor activity.)
- e.* Language by graphic methods.
- f.* Home geography; correlated nature work.
- 4. On spirit of schools. Love, sympathy, interest; the spirit of the home transferred to the school.

II. Froebel (1782 to 1852). Germany

386. Biography.

- 1. Friedrich Froebel was born at Oberweissbach, a village in Thuringia, in 1782. Mother died; little attention from father.
- 2. Grew close to nature.
- 3. Attended University of Jena a short time, but was unsuccessful.
- 4. Studied farming, and worked at forestry.
- 5. Teacher in normal school at Frankfort. Became a student of education.
- 6. Visited Pestalozzi at Yverdon and remained two years; returned to Frankfort; studied at University of Göttingen two years and at Berlin one year; a soldier, 1813-14.
- 7. Opened Universal German Educational Institute at Griesheim and moved it to Keilhau, 1817. Institute sacked and ruined, 1829. Returned to Keilhau, 1832; to Burgdorf as director of orphanage, conceived idea of kindergarten and planned education of mothers.
- 8. Institution for the Nurture of Little Children at Blankenburg, 1837. Makes use of name kindergarten in 1840.

387. Writings.

1. *The Education of Man* deals chiefly with the first seven years of childhood.
2. *Songs for Mother and Nursery.*

388. Meaning of the name kindergarten.

As planned by Froebel, it is not a school; it is a children's garden. It is intended for pupils three to seven years of age. Its purpose is stated by Froebel:

"To take the oversight of children before they are ready for school life; to exert an influence over their whole being in correspondence with its nature; to strengthen their bodily powers; to exercise their senses; to employ the awakening mind; to make them thoughtfully acquainted with the world of nature and of man; to guide their heart and soul in the right direction, and to lead them to the origin of all life and to union with Him."

389. Pedagogy.

1. Religion in education. "All education not founded on religion is unproductive."
2. Self-activity. This is the fundamental characteristic. Pestalozzi said the faculties were developed by exercise; Froebel sought to arouse voluntary activity.
3. Play. One means of directing voluntary activity in education. Every game has educational value.
4. Productiveness. "A child may forget what he sees, and more still what is said to him, but he never forgets what he has made." (Rousseau.) Occupations satisfy the constructive instinct. Compare manual training today.

5. Social action. This activity habituates the child to proper relations to humanity. Compare sociological view of education.

390. Features of the kindergarten.

1. An educative system of play. Little direct instruction; children are amused, interested, and directed to observe, to think, and to do through the use of toys (gifts) and play (occupations).
2. Harmonious development of all powers the initiative coming voluntarily from the child's instincts or impulses.
3. Froebel's gifts are kinds of playthings, but their great value is the unity and continuity of educative development of the child. Songs and dances serve as variety in the play.
4. First Gift. The Ball.
 - a. Materials. Worsted balls of different colors suspended by strings.
 - b. Aims. Observation—training the eye to color; motor activity—exercise of limbs in raising and lowering ball, passing right to left, etc., in game; to teach directions, properties, etc.
 - c. Advantages. Fellowship in united action; gentleness, pleasure, conscious growth; mental, moral and physical results from the first exercise.

391. Summary.

Theory and practice of the kindergarten are clearly shown in Dexter and Garlick's *Psychology*, page 94.

FEATURES OF KINDERGARTEN

The Child possesses:

1. Spontaneous activity.
2. Dislike of continued application.
3. Delight in handling things.
4. A liking for colors rather than for form.
5. Marked imitative powers.
6. Marked imaginative powers.
7. Some sympathy.
8. Strong verbal memory.
9. Weak discriminative power.
10. Weak powers of judgment and reasoning.
11. Weak moral sense.

The Kindergarten System recognizes:

1. That this spontaneous activity must be diverted into educational channels.
2. That lessons should be short.
3. That the child should handle the "gifts."
4. That the commencement should be made with colored objects.
5. That the child should imitate the teacher.
6. That the imagination should be employed in naming forms made in paper folding, etc.
7. That sympathy should be cultivated chiefly through pity.
8. That the memory may be usefully employed in learning songs, etc.
9. That the differences presented to the child's notice should be large.
10. That it is inadvisable to endeavor to evoke these too much.
11. That the moral sense may be trained through sympathy and regard for law and order, etc.

PSYCHOLOGICAL TENDENCY IN EDUCATION

392. Contributions.

1. Practical application of best features of educational theories.
2. Self-activity of the learner can be utilized in all schools.
3. The course of study must be correlated with the child and with life.
4. Child nature determines educational processes.
5. Education is development; a phase of evolution.

III. John Frederick Herbart (1776 to 1841). Germany

393. Biography.

1. Student under Fichte at Jena.
2. Private tutor in Berne, Switzerland.
3. In communication with Pestalozzi.
4. Professor of philosophy at Königsberg; successor to Kant (1809).
5. Established a practice school in connection with department of pedagogy in the university. The first of its kind. Compare 348.

394. System.

Completed and systematized Pestalozzi's views.

1. Pestalozzi wished to "psychologize education"; Herbart accomplished it.
2. Pestalozzi went as far as training the senses; Herbart explained how sense perception is converted into clear ideas by apperception.
3. Pestalozzi had no logical form or system; Herbart made such a system.

395. A series.

1. Locke made the child the center of theory and effort in education.
2. Rousseau outlined a form of training for one child.
3. Pestalozzi put the theory into concrete application in the schoolroom.
4. Herbart gave it a scientific basis, a psychological justification.

396. Writings.

1. *A B C of Intuition* (1804). This explained Pestalozzi's views.
2. *General Pedagogics* (1806).
3. *Education Under Public Cooperation*. Teachers are experts whom parents should consult.
4. *Relation of the School to Life*. Application of home rule (self-control) to every school.
5. *The Esthetic Presentation of the Universe as the Chief Aim of Education*.

397. His psychological views.

1. Rejected belief in existence of distinct faculties.
2. The soul is a unity with the one power of entering relationship with its environment through sense-perception.
3. Interactions of presentations of sense-perception lead through generalizations to concepts, and thence by other interactions to judgment and reasoning. (See Formal Steps of Instruction.)
4. Presentations are of two kinds.
 - a. Experience, from which knowledge comes.
 - b. Intercourse with society, from which social sympathy develops.

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5. Keynote is apperception,—the assimilative power of the mind through its own guided activity.

398. His pedagogy.

1. Aim of education is a moral-religious character.
2. Conform to the laws of human development as learned from exact psychology and sympathetic study of children.
3. The will exalted. Educative instruction must form the circle of thought so that right judgment and right willing must result.
4. Specific object of instruction is to stimulate and develop many-sided, equilibrious (harmonious) direct interest.
5. Kinds of interest.
 - a. Interests of knowledge $\left\{ \begin{array}{l} \text{empirical} \\ \text{speculative} \\ \text{esthetic} \end{array} \right.$
 - b. Interests of society $\left\{ \begin{array}{l} \text{sympathetic} \\ \text{social} \\ \text{religious} \end{array} \right.$
6. Subject matter of instruction is found in the sciences.
 - a. Natural sciences for 5 a.
 - b. Historical sciences for 5 b.
7. Method of instruction necessitates attention, absorption and reflection. Use Formal Steps.
8. Concentration. All instruction must be tending to a central core. Used literature or literature and history.
9. Use the things themselves or representations of the things.

PSYCHOLOGICAL TENDENCY IN EDUCATION

10. Self-activity of the pupil under instruction and guidance is the only way to character.

399. Contributions.

1. Unified prior and existing processes in education.
2. Founded the science of education.

400. Comparison.

Pestalozzi, Herbart, Froebel.

1. Herbart exalted the process of instruction, the method, the function of the teacher; Froebel exalted the material of instruction, the environment of the school, the importance of the child.
2. Herbart made instruction a means of forming moral character; Froebel made the stimulated activities of the child a way to character; Pestalozzi gave direct training in moral virtues.
3. Pestalozzi showed how to form clear percepts through trained senses; Herbart advanced psychologically by making percepts into concepts through apperception; Froebel worked back from percepts into the inherent character of child nature and made the volitional character of the human mind the foundation of education.

IV. Jacotot (1770-1840). France, Belgium

401. Teacher.

Jean Joseph Jacotot, a French mathematician, was the originator of what is called the universal method in education. His own diversified experience explains the general nature of his sayings called paradoxes. He

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concluded that success is possible in many fields, as he was successful as teacher of Latin, Greek, French, mathematics and Roman law; as soldier, member of Chamber of Deputies, lecturer and director of military school in Belgium. He was driven from France by Bourbons; he became Professor in the University of Louvain, Belgium.

402. Text-book.

In his classes in Louvain, he used Fénelon's *Telemaque* with French in one column and Flemish translation in the other. French was quickly learned entirely by the efforts of the students.

403. Paradoxes.

1. "All human beings are equally capable of learning."
Not so; the truth in it means that learning depends upon the will. He derived this principle from observation of mental progress of his Flemish students.
2. "Every one can teach; and, moreover, can teach that which he does not know himself." His meaning of teach is causing to learn. Not true in science, music, drawing and many other subjects. The truth in it relates to stimulating self-activity of pupils, as he did in Louvain.
3. "*Tout est dans tout*," "All is in all." Insisted upon memorizing six books of *Telemaque*. Then, with this knowledge as an apperceptive mass or basis, students could acquire all related knowledge. As no bit of knowledge can exist alone or isolated in the mind, this core, thoroughly mas-

tered, makes it possible to master all other matter in French. Apperception and correlation used.

404. Value of Jacotot's universal method.

1. Something thoroughly mastered.
2. Other facts correlated with this.
3. Success from such self-activity enkindles interest.
4. Did he not carry repetition too far?
5. His comparison and verification coordinated elementary method with the method of investigation.
6. Four steps make a plan in teaching pupils how to study: Learn, repeat, compare, verify.

V. Herbert Spencer (1820 to 1903). England

405. Science.

Represented the scientific tendency in education. Recall the attention to Latin and Greek languages under humanism and observe that linguistic studies are still a recognized part of courses of study. Science constitutes another important department of education to-day, but the development of science as content and scientific method is recent. Spencer is the leading advocate of the scientific tendency in education. See 373 for influence of Rousseau.

406. Book.

In 1860, he wrote *Education, Intellectual, Moral, and Physical*. Agrees with Bacon regarding purpose, basis and method of education. Agrees with Rousseau in the use of natural punishments.

407. Definition.

“Education is a preparation for complete living. The knowledge that is of most worth is that which most effectively promotes complete living.”

408. Activities constituting complete living.

In classifying the knowledge that is of most worth, Spencer made five divisions.

1. Direct self-preservation.
2. Indirect self-preservation. All those needful for the necessities of life.
3. The rearing of children.
4. Social demands and citizenship.
5. Literature, art, esthetics, etc., for the leisure part of life.

409. Sciences predominant.

Natural sciences for the first three, social sciences for the fourth, and then culture subjects for the fifth in 408.

410. Utilitarian scheme.

Culture studies put last, but Spencer would have all secure some knowledge of each group mentioned. To him, science included all the sciences of nature, sociology, psychology, mathematics and history, the science of language alone being excluded.

411. Criticism.

1. Meaning of complete living. Satisfactory definition has not been given; too much variety in demands of different countries and different civilizations.
2. The use of the term science. See 410. Too broad.
3. Spencer has omitted what constitutes man's worth

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in those activities in relation to others, i. e., all that makes up character.

4. Impossible for pupils to comprehend the scientific treatment under the first three headings.
5. Spence's effort to outline a scheme intended to correct the one-sidedness of linguistic education has produced a one-sidedness in scientific education.

412. Contributions.

1. Directed attention to the value of science as suitable material and method in education.
2. Made the principles of Pestalozzi and other innovators familiar to English-speaking people.
 - a. From simple to complex.
 - b. From concrete to abstract.
 - c. From known to related unknown.
 - d. From empirical to rational. Recall Locke's theory of knowledge.
 - e. Self-development through self-activity.
3. Directed attention to natural means in discipline by advocating the theory of natural punishments or the discipline of consequences. This theory does not, however, admit universal application. See 367.
4. Justification of rational physical education; refuted the hardening process of Locke.

VI. *Thomas Arnold (1795-1842). England*

413. Early life.

1. Born at Cowes, Isle of Wight.
2. A pupil at Warminster, where he was influenced by reading Priestley's *Lectures on History*.

3. A pupil at Winchester where he became familiar with monitorial system, the discipline of boys, and the general management of one of the noted public schools. This observation aided him in developing Rugby.

413. Oxford.

1. At sixteen, student in Oxford. Associated with Coleridge, John Keble, the writer of hymns, Whately, afterwards Archbishop of Dublin, and John Henry Newman. Greatly influenced by personal association.
2. Wordsworth's *Lyrical Ballads* charmed him, the study of the Lake poets imbued him with lofty and imaginative thoughts which influenced his whole spiritual life.
3. Ordained priest in the Episcopal church in 1818, and served nine years. Interested in the poor; direct social contact made a means of improving the community. Became tutor of boys and developed unusual power in teaching on account of his intense earnestness.

414. Rugby.

Became headmaster in August, 1828. Frankly helpful to assistants, morally severe but honest with boys, independent in thought and speech at all times. "It is not necessary that this should be a school of 300 or 100 or 50 boys; but it is necessary that it should be a school of Christian gentlemen."

415. Characteristics.

Earnestness, thoroughness, frankness, sincerity.

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416. Influence.

1. Reformed the public schools of England. He modified severity of punishment in upper classes, and restricted flogging to moral offenses.
2. Made character an educational ideal. He placed aims of school life in the order (a) religious and moral principles, (b) gentlemanly conduct, (c) intellectual ability.
3. Implicit trust in students was an incentive for self-control.
4. Individual instruction: reciprocal relations between teacher and pupil in conduct, scholarship and character.

417. Estimate.

“The most famous modern schoolmaster.”

418. Reference.

Read *Tom Brown's School Days* by Hughes.

VII. Alexander Bain (1818 to 1903). Scotland

419. Teacher.

Professor of logic in University of Aberdeen.

420. Writer.

Exponent of physiological psychology. Several educational books; *Education as a Science* (1878).

421. Influence.

Conservation and correlation of forces. Attention directed to the necessity of harmonizing mental and physical relations. Think of present study of fatigue, nervous disorders, defective children.

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VIII. *Joseph Payne (1807 to 1876). England*

422. **Teacher.**

1. Tutor.
2. Teacher in private schools.
3. Public lecturer on education.
4. First professor of art and science of education in England. Chair in College of Preceptors.
5. Exponent of views of Froebel and Jacotot.

423. **Influence.**

1. Book. *Lectures on the Science and Art of Education*. A plain, practical treatise.
2. Introduced system of examination of teachers.
3. Made English public familiar with phases of education as a national institution.

IX. *Rosmini (1797 to 1855). Italy*

1. Antonio Rosmini-Serbati, descendant of a noble and wealthy family, became a Catholic priest and founded a religious order, the Institute of Charity, known also as the Rosminians. The order includes Brothers of Charity and Sisters of Charity, or Sisters of Providence. The work of the order includes charity, Sunday schools, elementary schools and pedagogical training of teachers.

2. He wrote *New Essays on the Origin of Ideas*, *Principles of Moral Science*, and chapters on *Unity of Education* and *Liberty of Teaching*.

3. Rosmini's contribution to education is a system of philosophy which harmonizes scholasticism and modern

thought. His analysis of mental activity combines intellect and will under apperception. He made use of Herbart's conception of apperception and interest, but he did not know Herbart; and Froebel's conception of education as development is included. Rosmini argued that thought serves as matter for a subsequent thought and thus a close series is formed in the natural order of apperception. "All the thoughts that ever entered, or can enter, the mind of man are distributed and classified into so many different orders according to this law. Those orders are:

"First, thoughts that do not derive their matter from previous thoughts. .

"Second, thoughts that derive their matter from thoughts of the first order, and from no others.

"Third, thoughts that derive their matter from thoughts of the second order (and so on).

"This series of orders is endless; hence the infinite development to which the human intelligence is ordained."

On this theory, Rosmini framed a table showing the intellect act and the corresponding act of the will in each of the four orders of thought. In the first order, there is intellectual perception of the subsistent thing and affectional volition of the thing as a whole. In the second order, there is intellectual abstraction of the qualities presented by the senses and affectional volition directed to the sensible quality abstracted. In the third order, there is synthetic association of the interesting quality of the thing and the thing itself and a resulting judgment; and appreciated volition directed to the object in proportion to the extent to which the mind

recognizes the quality as a quality of the thing. In the fourth order, there is comparison of the two objects judged and the formation of a third judgment, or an appreciation of one; and there is appreciative volition showing choice between the two objects.

Recall Herbart's formal steps of instruction as an intellectual process; compare with Rosmini's process and observe in the latter a blending of religion and education so that the intellect and the will shall cooperate in development that insures moral and intellectual freedom. Rosmini deserves recognition as an organizer of conflicting opinions, a leader in showing the function of the will in a unified process in education.

X. William T. Harris (1835 to 1908).

1. Born in Connecticut, studied in Yale, teacher and superintendent in St. Louis, 1857 to 1889, United States Commissioner of Education, 1889 to 1896.

2. Student of philosophy and psychology nearly fifty years. Founded *Journal of Speculative Philosophy*.

3. The first great educational philosopher in America. Value of his philosophic study evident in all his work. Annual Reports in St. Louis and in Washington; editor of International Educational Series; editor-in-chief of Webster's New International Dictionary; member of Committee of Fifteen; author of *Psychologic Foundations of Education*; wrote on nearly five hundred subjects relating to education.

4. Three purposes in his educational activity.

- a. To psychologize education.

- b. To exalt the school as a sociological institution.

- c. To reorganize processes so that education should be on a permanent foundation. The respective agencies were analyzed and classified so that each should contribute to education as the institution which enables man to work out his destiny according to the will of God.

XI. Burke A. Hinsdale (1837 to 1900).

1. Born in Ohio, educated at Eclectic Institute (later Hiram College), clergyman, president of Hiram College.

2. Superintendent of schools in Cleveland, 1882 to 1886, and, 1888 to 1900, professor of science and art of education in University of Michigan.

3. His writings are valued on account of clear grasp of the needs of the schoolroom, breadth of knowledge in subject-matter to be taught, and aptness in applying the principles of psychology to methods of teaching and school management.

The Art of Study.

Studies in Education.

Jesus as an Educator.

How to Teach and Study History.

Teaching the Language Arts.

Horace Mann and the Common School Revival in the United States.

CHAPTER XXVI

EDUCATION IN UNITED STATES

424. Bureau of Education.

1. The Bureau of Education was made a department March 2, 1867, but in 1868 reduced to a division of the Department of the Interior. No power over state educational systems. Chief services are in collecting and distributing educational information.
 - a.* Annual Reports.
 - b.* Bulletins.
 - c.* Circulars of Information.
2. Divisions of Bureau.
 - a.* School sanitation and hygiene.
 - b.* Higher education.
 - c.* School administration.
 - d.* Rural education.
 - e.* Editorial division.
 - f.* Library.
3. Commissioners.

Henry Barnard, 1867 to 1870.
John Eaton, 1870 to 1886.
Nathaniel H. R. Dawson, 1886 to 1889.
William T. Harris, 1889 to 1906.
Elmer E. Brown, 1906 to 1911.
Philander P. Claxton, 1911 to date.

425. State systems.

The state systems are in charge of commissioners of education or superintendents of public instruction and governing organizations known as boards of regents or boards of education. While the standards of efficiency vary, all the states are working toward the large ideals of universal and compulsory education. The ultimate aim is to give the advantages of education to every person who is capable of profiting by the training that is offered.

The development of the various grades of schools is indicated by the history of some of the colonies which may be studied as types. Judgment of lapses, defects and faults should be tempered by consideration of the difficulties which pioneers had to meet.

426. National measures to promote education.

1785. Sections of townships in the western territory reserved for school purposes.

1836. Division of national surplus among states.

1862. Land scrip granted for agricultural colleges.

427. Characteristics of educational advancement.

1. Increase in number of colleges and universities.
2. Adaptation of high schools or academies to local needs.
3. Establishment of system of elementary schools.
4. Courses of study enlarged, enriched, and prescribed.
5. Methods of teaching improved by making the appeal humane, objective, adapted; by enabling child to do for himself under the principles of

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interest, self-activity and motor expression; and by leading pupils to feel the direct relationship of the work to the experiences of life.

6. Recognition of the needs and rights of girls.
7. Gradual development toward all kinds of useful instruction under the ideals of free, compulsory, universal education.

Massachusetts

428. Favorable conditions.

All had some education and, in Plymouth and Massachusetts Bay colonies, one man in every 250 was a graduate from an English university.

429. Boston Latin School, 1635.

The town, five years old, requested Brother Philemon Purport to become schoolmaster. The Latin School traces its history to this event. Ezekiel Cheever, the most famous teacher, was in the Latin School thirty-eight years. In 1636, the General Court appropriated \$2,000 toward a school or college, which was located at Newtown in 1637. Foundation of Harvard College.

430. Harvard College, 1638.

John Harvard bequeathed his library and half his property. Name of town changed from Newtown to Cambridge in honor of John Harvard's alma mater.

Other towns made provision for schools: Charlestown employed William Witherell, in 1636, for twelve months for \$200; in 1637 Rev. John Fiske in Salem;

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in 1639 Dorchester, school supported by tax; in 1639 Newburg granted ten acres to Anthony Somerby to open a school; Ipswich, 1641; Cambridge, 1642; Roxbury, 1645.

431. Laws.

In 1642 Massachusetts law for support of common schools. Schools not free, but in 1647 schools made free. The law of 1642 was an attempt to provide for all as a few towns had provided individually. The law of 1647, known as "that old deluder Satan law," is referred to as the mother of all our school laws. It is the foundation of the Massachusetts school system. Harvard College was in existence, and this law required every town of fifty families to employ a schoolmaster, and every town of one hundred families to provide a grammar school to prepare students for college. In 1691 the united colonies provided for town schools, course of study, support by taxation, and certification of teachers.

Elijah Corlett was a noted teacher in Cambridge forty-three years.

432. Constitution of 1789.

1. District system legalized.
2. Towns of 50 families support an English school six months; 100 families, English school twelve months; 150 families, English school six months and grammar school twelve months; 200 families, both schools twelve months.
3. All high school teachers must be college graduates, or men certified by learned minister.

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4. Elementary teachers must be citizens of United States and must hold certificate.
5. Ministers and selectmen a visiting committee.

433. Academies.

1. Fifty years of weakness in education. Town schools declined on account of breaking into districts and the coming of the moving school.
2. The endowed academies replaced the older grammar schools. The first endowed academy was Newburg in 1763. In 1778 Phillips Academy at Andover; in 1784 Leicester Academy; and by 1840 there were 112 academies preparing boys for college. Better curriculum than the grammar schools had but the exalted idea of private school education was an obstacle to public education.

434. State support.

1. In 1647 taxation for schools was permitted, but the law of 1827 enforced taxation for school support.
2. School fund provided by sale of Maine lands; not to exceed one million dollars.
3. In 1836 first law regulating child labor. Children under fifteen not to be employed unless they attended school three months during the school year.
4. Massachusetts State Board of Education, 1837. On June 29, 1837, Horace Mann was elected first secretary.

435. Horace Mann (1796-1859).

1. Brown University, lawyer, Mass. legislature, Congress.

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2. 1837-1849, Secretary Mass. State Board of Education.
3. Twelve Annual Reports. Seventh Annual Report is valuable discussion of European Schools.
4. Aims.
 - a. Consolidation of small schools.
 - b. Elevation of standard of teaching.
 - c. Normal schools.
 - d. Longer school terms.
 - e. School libraries.
 - f. Enriched curriculum.
 - g. Milder discipline.
5. Results. Positive success in all his aims excepting consolidation of district schools. That came in 1859; permanent in 1882.
6. First great American school organizer, sometimes called Father of Common School System in the United States.
7. President of Antioch College, Ohio. From his last address: "Be ashamed to die until you have won some victory for humanity."

436. Educational institutions.

1. *Nine normal schools.* Bridgewater, Fitchburg, Framingham (formerly Lexington opened 1839), Hyannis, Lowell, North Adams, Salem, Westfield (formerly Barre opened 1839), and Worcester.
2. *Technical work.* Massachusetts Agricultural College at Amherst, Institute of Technology at Boston, Worcester Polytechnic Institute.

CONNECTICUT

3. Colleges and Universities.

INSTITUTION	LOCATION	OPENED	CONTROL	FOR
Harvard University....	Cambridge....	1638	Nonsectarian	Men
Williams College.....	Williamstown	1793	Nonsectarian	Men
Amherst College.....	Amherst.....	1821	Nonsectarian	Men
Mt. Holyoke College....	South Hadley..	1837	Nonsectarian	Women
College of the Holy Cross.....	Worcester....	1843	R. C.	Men
Lasell Seminary.....	Auburndale...	1851	Nonsectarian	Women
Tufts College.....	Tufts College..	1854	Nonsectarian	Both sexes
Massachusetts Institute of Technology.....	Boston.....	1865	Nonsectarian	Both sexes
Massachusetts Agricultural College.....	Amherst.....	1867	State	Both sexes
Worcester Polytechnic Institute.....	Worcester....	1868	Nonsectarian	Men
Boston University.....	Boston.....	1873	M. E.	Both sexes
Smith College.....	Northampton..	1875	Nonsectarian	Women
Wellesley College.....	Wellesley.....	1875	Nonsectarian	Women
Radcliffe College.....	Cambridge....	1879	Nonsectarian	Women
Clark University.....	Worcester....	1889	Nonsectarian	Both sexes
Simmons College.....	Boston.....	1902	Nonsectarian	Both sexes

Connecticut

437. Early history.

1. Similar to organization in Massachusetts towns. Hartford chief city of Connecticut Colony (1635) and New Haven in New Haven Colony (1638).
2. In 1650 Connecticut Colony laws required town of 50 families to appoint one to teach children to read and write, and town of 100 families to maintain a grammar school.
3. The New Haven Colony code required masters and parents to teach apprentices and other children to read and write.
4. Colonies united in 1665 and the Connecticut laws prevailed. In 1690 the legislature voted \$300 yearly to the grammar schools in New Haven

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and Hartford, and in 1693 \$150 to each of the grammar schools in New London and Fairfield, thus providing state aid for the four counties.

5. School supervision provided in 1714. Selectmen made visitors and examiners. Law in force until 1798, when school societies were empowered to control the respective schools.
6. School fund provided from public lands in state in 1733. State fund secured in 1795 by sale of land in Pennsylvania and Ohio; \$1,200,000.
7. District system in 1766. Parishes and towns divided; local support and control.
8. Constitution of 1818 protected school fund, but did not contain positive requirements about education. It was a time of apathy in education. In 1838-9, an investigation resulted in Board of Commissioners for common schools, with Henry Barnard secretary. He was legislated out of office in 1842, but in 1849 he became Superintendent of Common Schools.

438. Henry Barnard (1811 to 1900).

1. Born in Hartford, educated in Hopkins Academy, Monson Academy, and Yale, class of 1830.
2. Studied law and was admitted to the bar.
3. Taught school; studied social and educational institutions in Europe, and wrote *Reformatory Education*, one of the earliest and most important works on juvenile delinquents.
4. In legislature; formulated bill making State Board of Education the basis of the state school system.
5. Secretary of Board of Commissioners four years.

HENRY BARNARD

Notable reforms similar to changes in Massachusetts under Horace Mann.

- a. First teachers' institute in 1839.
 - b. Established *Connecticut Common School Journal*.
 - c. Secured passage of desirable laws.
 - d. "The cold torpidity of the state soon felt the sensations of returning vitality." (Horace Mann.)
6. Six years in charge of schools of Rhode Island.
- a. Organized Rhode Island Institute of Instruction, the first teachers' association in the United States.
 - b. Town libraries for the use of schools.
 - c. Town lecture courses for teachers.
 - d. Traveling model school. Teacher and class went from town to town to institutes.
7. In 1851, Secretary of State Board of Education of Connecticut and principal of New Britain Normal School. Wrote *Normal Schools and School Architecture*.
8. In 1855, *American Journal of Education* founded. Edited it twenty-six years and produced 32 volumes of more than 800 pages each.
9. In 1867, First United States Commissioner of Education.
10. He gave America her first literature of education.
- Connecticut Reports.*
Rhode Island Reports.
United States Commissioner of Education Reports.
Connecticut Common School Journal, 4 volumes.

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Rhode Island Institute of Instruction, 3 volumes.

American Journal of Education, 32 volumes.

52 works on American and European Education.

439. Institutions.

1. Four normal schools. Danbury, New Britain, New Haven and Willimantic.
2. Colleges and universities. Yale University at New Haven (1701), Trinity College at Hartford, Wesleyan University at Middletown.

New Jersey

440. Composite type.

1. The early period of education in New Jersey combined the notions of settlers from several nations. The first school was established by the Dutch at Bergen about 1662, and all the inhabitants were required to contribute to the support.
2. Connecticut emigrants settled the town of Newark in 1666 and ten years later a schoolmaster was appointed to teach the rudiments and as much else as the pupils were capable of assimilating.
3. In 1689 the English opened a school at Woodridge and set apart one hundred acres of land for education. Other early settlements and schools were at Perth Amboy, Piscataway, Shrewsbury, Middletown and Freehold.
4. In 1682 the Assembly of West Jersey made a grant of 300 acres, the island of Matinicum in the Delaware river, for educational purposes. The

Quakers in that section were liberal supporters of the school and the church side by side.

5. In 1693 the East Jersey Assembly at Perth Amboy passed an act encouraging town organization of schools under three directors chosen under warrant of the justice of the peace.
6. For fifty years following the union of East Jersey and West Jersey in 1702, the educational advancement rested upon the personal endeavors of a few leaders. Some schools were supported by subscription; some private grammar schools were opened, among which was William Tennent's Log College at Nashamany in 1727, an institution associated with the history of Princeton University.
7. Colleges and universities. College of New Jersey, now Princeton University, in 1746, Rutgers College at New Brunswick in 1766, Seton Hall College at South Orange, St. Benedict's College at Newark, St. Peter's College at Jersey City, Upsala College at Kenilworth, St. Elizabeth's College at Convent Station, College of Mount St. Mary at Plainfield, and Stevens Institute of Technology at Hoboken.
8. Normal schools. Trenton and Montclair are state schools; Jersey City, Newark, Paterson and Elizabeth have city normal schools.
9. Present system is under State Board of Education and State Commissioner of Education. County supervision with the township or school district.

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Pennsylvania

441. Facts.

1. Penn's Frame of Government, drawn up in England in 1682, provided for teaching reading, writing, and a useful trade.
2. In 1683 Enoch Flower was engaged as schoolmaster in Philadelphia. First school in the state.
3. In 1689 Friends' Public School opened. Similar to grammar schools in England. A chartered school which became the William Penn Charter School.
4. In 1692 a school was opened in Darby, and in 1697 the Society of Friends established a public school in Philadelphia free for poor children.
5. Many private schools and parochial schools under different denominations were established, as Germantown Academy (1761) and the Moravian schools at Nazareth and Bethlehem. Charity schools, private schools and church schools controlled education half a century. The New England colonists in the Wyoming Valley maintained schools such as New England had.
6. State Common School Fund from sale of public lands, 1831. Three years later the county was made the school division, and each district was given directors and inspectors. State appropriation and local tax supplemented the state fund. Full state control under these provisions did not become effective until 1873.
7. Present system under State Board of Education and State Superintendent of Public Instruction.
8. Thirteen normal schools partially under state control.

PENNSYLVANIA

All these will ultimately be state normal schools. They are at Loch Haven, Clarion, Shippensburg, East Stroudsburg, Edinboro, Millersville, Indiana, Kutztown, Mansfield, Slippery Rock, California and West Chester.

9. Colleges and universities. Pennsylvania State College at State College is under state control. There are 34 other institutions, as University of Pennsylvania at Philadelphia, Dickinson College at Carlisle, Bucknell University at Lewisburg, Lafayette College at Easton, Lasalle College at Philadelphia, Franklin and Marshall at Lancaster, Girard at Philadelphia, Lehigh University at South Bethlehem, Villa Nova, Haverford, Swarthmore and Pittsburgh.

442. Dock's *Schulordnung*.

This Plan of Teaching was the first American book on pedagogics, by Christopher Dock, a German Mennonite teacher. Written at Germantown, Pa., 1750, and published about 1770.

443. Benjamin Franklin (1706 to 1790).

1. Influenced thought by services as author, scientist, statesman.
2. His writings are world literature in education, as *Poor Richard's Almanac* and *Autobiography*.
3. Founded first American circulating library (1731), the academy that developed into University of Pennsylvania, and the American Philosophical Society. The purpose of the Philosophical Society was to secure cooperation of learned men.

4. Two specific writings on education should be considered. In one, *Proposals relating to the Education of Youth in Pennsylvania* (1749), Franklin suggested the academy and outlined the essentials as follows: "Clear and rapid penmanship; something of drawing and perspective; arithmetic, accounts, and some geometry and astronomy; English grammar, pronunciation, and composition, taught through oratory and debate and the writing of letters, abstracts, and reports; some geography; biography for its moral lessons; much history for its illumination of politics, religion, and citizenship, and its incidental incitement to the study of ancient and modern foreign languages; natural history, with observations, excursions, and practical exercises, and finally the history of commerce, invention, and manufacture, with an introduction to mechanics. The other book, *An Idea of the English School*, suggests specific methods for teaching the foregoing subjects, with emphasis upon English language and literature, but no Greek and Latin.

444. Pestalozzian influence.

1. William McClure visited Yverdon and secured Joseph Neef, Pestalozzi's co-worker at Berne.
2. Neef taught in Philadelphia twenty years; wrote *Methods of Teaching*; founded Community School, New Harmony, Indiana (1826), in which he trained teachers.

*Maryland***445. Essential facts.**

1. In 1695 the colonial assembly passed two acts, one to encourage learning and the other to petition for the erection of free schools.
2. In 1796 an act was passed favoring the erection of free schools for higher grades in each county. As a direct result, King William's School was founded at Annapolis as a preparatory school for William and Mary College. This plan of one free higher school in each county dominated the Maryland school system for a century and a half.
3. In 1723 a school fund for the regular support of the free higher school in each county was begun by the import tax on pitch, pork and tar; and trustees or visitors were appointed to manage the fund and maintain the school for each county.
4. In 1728 the visitors were required to have the schoolmasters for each high school teach as many poor pupils free as the visitors directed. By this provision of 1728 the county academy was established and the plan of sustaining the charity schools for the poor became fixed.
5. In 1782 the University of Maryland was provided for by the opening of Washington College at Chestertown, and in 1784 St. John's College at Annapolis.
6. In 1799 the Benevolent Society of the City of Baltimore was organized to care for the education of the female children of the poor. In 1805 St. Peter's School for the poor was opened, and dur-

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ing the next twenty years many academies and other high schools were supported by the aid of lottery or other means.

7. In 1812 a school fund was raised by the tax on banks, in 1813 changed to tax on bank stock, and later aided by estates of persons dying intestate, interest received from United States and income from railway stock. In 1816 the first direct tax was imposed to support schools for poor children.
8. In 1826 the first general school law was enacted covering supervision, course of study, certification of teachers and support of schools. The law was not enforced, however, except in Baltimore.
9. The State Constitution of 1864 provided a basis and the law of 1865 secured an efficient system for state education under central supervision. In the same year a normal school was established in Baltimore. In 1868 the laws were modified to satisfy the needs tested by experience under the law of 1865.
10. In 1896 a normal department was organized in Washington College and in 1898 a second normal school was opened at Frostburg. A normal school for colored teachers was opened in Baltimore in 1908.

MARYLAND

11. Higher institutions.

INSTITUTION	LOCATION	OPENED	CONTROL	STATE AID	FOR
Charlotte Hall Academy.....	Charlotte Hall	1774	.....	\$6,600	Males
Washington College..	Chestertown..	1783	Nonsectarian	13,275	Both sexes
St. John's College....	Annapolis....	1789	Nonsectarian	14,200	Males
Medical Department of University of Maryland.....	Baltimore....	1807	.....	4,000	Males
Mt. St. Mary's College	Emmitsburg..	1808	R. C.	.....	Males
Law School, University of Maryland....	Baltimore....	1814	.....	.....	Males
New Windsor College.	New Windsor.	1843	Presbyterian	.....	Both sexes
St. Mary's Female College.....	St. Mary' City	....	.....	6,000	Women
McDonough Institute	La Plata.....	....	.....	5,000	Both sexes
St. John's Literary Institute.....	Frederick....	....	.....	400	Males
Maryland Institute...	Baltimore....	....	.....	10,000	Both sexes
U. S. Naval Academy	Annapolis....	1845	Nation	.....	Males
Loyola College.....	Baltimore....	1852	R. C.	.....	Males
Kee Mar College.....	Hagerstown..	1852	Nonsectarian	.....	Women
Maryland College for Women.....	Lutherville...	1853	Lutheran	.....	Women
Rock Hill College....	Ellicott City..	1857	R. C.	.....	Males
Maryland Agricultural College.....	College Park..	1859	State	15,000	Males
Morgan College.....	Baltimore....	1867	M. E.	.....	Both sexes
Western Maryland College.....	Westminster..	1867	Meth. Prot.	15,800	Both sexes
College of Physicians and Surgeons.....	Baltimore....	1872	.....	4,000	Males
Johns Hopkins University.....	Baltimore....	1876	Nonsectarian	25,000	Males
Baltimore Medical College.....	Baltimore....	1881	.....	4,000	Males
Goucher College.....	Baltimore....	1888	M. E.	.....	Women
Woman's College....	Frederick....	1893	Reform	.....	Women

Virginia

446. Essential facts.

1. In 1618 it was proposed to establish a college with associated preparatory schools, but the Indian massacre of 1622 interfered with the project, and nothing more was done until the College of William and Mary was established in 1693. This college alone represented higher education nearly fifty years, during which time

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lower education was in charge of tutors, clergymen and other private endeavors.

2. In 1749 Washington and Lee University at Lexington had its origin in a Presbyterian academy chartered in 1782 as Liberty Hall.

3. The third institution of the colonial period was Hampden-Sidney College (1783), which had its beginning in a Presbyterian academy chartered in 1776.

3. In 1779 Jefferson and Wythe framed a bill for the establishment of a school system, but the bill was not passed. The first school law was in 1796, but its optional character did not secure enforcement. It provided for the teaching of reading, writing and common arithmetic; a board of three aldermen to erect school, appoint teacher, visit and examine schools once in six months; support by county tax. The scheme was theoretically sound, but the administration was not well carried out.

4. The second school law was passed in 1818, and it provided a charity school system in towns, cities and counties. The literary fund, which was started in 1810, had increased to a million dollars, and out of this fund \$45,000 was annually paid for the support of charity schools, or free public schools for poor children. In 1821 colleges, academies and grammar schools began sharing the state support.

5. University of Virginia at Charlottesville chartered in 1819 as a result of persistent efforts of Jefferson, Madison and other leaders. Opened to students March 7, 1825.

6. Virginia Military Institute at Lexington, 1839. Modeled after West Point.

VIRGINIA

7. The third school law, enacted in 1846, provided for boards of commissioners, division of counties into districts, elementary and grammar schools, free to all resident white children above the age of six, and support by local tax to supplement state aid. These provisions were in effect until the Civil War and they are found in modified form in the present school system.

8. Normal schools. Colored students are trained in Virginia Normal and Industrial Institute, Hampton Normal and Agricultural Institute, or in some of the denominational schools for negroes. White students are trained in the College of William and Mary, the Virginia Military Institute, the State Female Normal School, the college at Radford, or in the state normal schools at Harrisonburg and Fredericksburg.

447. Thomas Jefferson (1743 to 1826).

1. "Author of Declaration of Independence, of the statute of religious freedom, and father of the University of Virginia." These words are from his epitaph composed by himself. The statute of religious freedom was enacted in Virginia in 1776, separating Church and State.

2. Persistently worked for legislation establishing a state system of schools, but he was not supported by legislators.

3. Directly responsible for founding and organizing the University of Virginia. Assisted by James Madison and Joseph C. Cabell. Rector of the University. He favored an elective system instead of a prescribed curriculum, and advocated the development of individual responsibility of students in place of rigid discipline.

4. Purpose of a state university.

a. "To form the statesmen, legislators, and judges, on whom public prosperity and individual happiness depend.

b. "To expound the principles and structure of government, the laws which regulate the intercourse of nations, those formed municipally for our own government, and a sound spirit of legislation.

c. "To harmonize and promote the interests of agriculture, manufactures, and commerce, and by well-informed views of political economy to give a free scope to the public industry.

d. "To develop the reasoning faculties of our youth, enlarge their minds, cultivate their morals, and instill in them the precepts of virtue and order.

e. "To enlighten them with mathematical and physical sciences, which advance the arts, and administer to the health, the subsistence, and comforts of human life."

448. Cabell.

Joseph Cabell was graduated from William and Mary College, studied in Europe, visited Yverdon, tried to introduce methods of Pestalozzi in Virginia. Aided Jefferson in founding the University of Virginia.

Georgia

449. Essential facts.

1. In laying out original towns, land was set aside for school purposes. Schools maintained by trustees and charitable contributions.

GEORGIA

2. In 1754 the crown took control and assured continuance of allowance to minister and two schoolmasters. This condition remained until the Revolution, and it was the only instance of Parliamentary support of schools in the colonies.

3. In 1739 George Whitefield, the evangelist, founded an orphan house in imitation of Francke's orphanage among the Institutions at Halle. Carpentering, tailoring, weaving and other trades were taught. Whitefield expended \$60,000 in developing the orphanage.

4. Free schools of the county type were planned by legislature enactment in 1777, and the first three academies were chartered in 1783. Each school was given an endowment and one thousand acres of land. All the academies became a part of the state administrative system under the state university two years later when Georgia enacted a statute providing for the first state university in this country. The system, excellent as an administrative scheme, produced academies for girls and boys and also separate schools with courses embracing English, Latin, Greek, writing, arithmetic, geography, astronomy, mathematics and Roman antiquities.

5. Private schools and charity schools developed as in the other colonies.

6. Normal and industrial schools are typical institutions at present. The Georgia State Industrial College at Savannah is for negroes; the Georgia Normal and Industrial College at Milledgeville is for whites.

7. Colleges and universities. University of Georgia at Athens, Georgia State College of Agriculture and Mechanical Arts at Athens, Georgia School of Technology at Atlanta, North Georgia Agricultural College at

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Dahlonga. The Georgia State Industrial College at Savannah is for negroes.

450. Pedagogical journals.

1. The Academician was the first, New York, 1820.
2. Annals of Education, Boston, 1830.
3. The Common School Journal of Massachusetts (1837) started by Horace Mann.
4. Common School Journal of Connecticut (1838) started by Henry Barnard.
5. New York District School Journal, edited by Francis Dwight, Geneva, 1841.
6. Barnard's American Journal of Education, 1855.

451. Some early text-books.

1. Daboll's Arithmetic.
2. Dilworth's Spelling Book.
3. Webster's Spelling Book.
4. Hodder's Arithmetic.
5. Bailey's English and Latin Grammar.
6. Lindley Murray's Grammar.
7. Morse's Geography.
8. Webster's Historical Reader.

452. Some important dates and events.

1. 1700, Yale College.
2. 1704, First American newspaper.
3. 1709, First daily newspaper.
4. 1746, Princeton University.
5. 1751, Academy of Philadelphia; later became University of Pennsylvania.
6. 1754, King's College; now Columbia.

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7. 1785, Land endowments for public schools in the United States.
8. 1785, Webster's speller.
9. 1795, Lindley Murray's English Grammar.
10. 1802, Congress authorized states formed from Northwestern Territory to reserve lands for school purposes.
11. 1806, Neef in Philadelphia.
12. 1821, First high school (Boston).
13. 1827, All schools free in Massachusetts.
14. 1836, Congress distributed among the states \$30,000,000, the surplus in the United States treasury. Used by sixteen states for common schools.
15. 1837-1849, Horace Mann, Secretary of Massachusetts Board of Education.
16. 1838, First state normal school in the United States. (Massachusetts.)
17. 1860, First kindergarten in the United States.
18. 1862, Morrell Land Grant for agricultural and technical education.
19. 1867, United States Commissioner of Education.
20. 1873, Kindergarten part of public school. (St. Louis.)

CHAPTER XXVII

EDUCATION IN NEW YORK STATE

453. Dates and facts.

Period of Dutch Control

Dutch West India Company in control of New Netherlands. New Amsterdam was the principal settlement with a dozen neighboring settlements on western Long Island and along the Hudson River.

1629. First official act by Patroons for support of minister and schoolmaster.

1633. First elementary school in America. This date is in dispute, many writers claiming 1638 as the correct date. Adam Roelandson was the first regular schoolmaster, 1633 to 1639. A parochial school under joint control of West India Company and the Reformed Dutch Church. The Company paid the salaries and held principal control while the Church supervised the teaching. The schoolmaster, who was usually the reader, the leader of the choir, and sometimes the sexton of the church, received in addition to his salary tuition fees from all pupils excepting the poor, who were admitted free.

1642. Many private schools started.

1652. A Latin school opened by the Company in New Amsterdam, but closed soon.

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1653. New Amsterdam received city charter which placed the school under control of the city governor. The continuous existence of this school is claimed, and thus it is the foundation of the oldest elementary school in America. Parochial schools in neighboring villages were supported by the local court and the local church. The West India Company did not pay salaries nor otherwise hold direct interest.

1659. First permanent Latin school under joint support and control of the Company and the city. Dr. Alexander Carolus Curtius was the teacher. Private schoolmasters taught Latin and other subjects in New Amsterdam from the time of founding the city. Private instructors had to be authorized by the director and the council. The subjects in the schools were reading, writing, some arithmetic, the catechism and prayers. Girls and boys attended on equal terms.

Under Control of England

After the English secured control, the parochial schools of the Dutch continued until the Revolution. There was an epoch of lack of interest in public education as the English favored the private school system. Teachers were licensed by the governor or the Bishop of London. Some charity schools were helped by the city and the different churches.

1702. "An Act for encouragement of a grammar free school" provided for the appointment by the governor of a schoolmaster to instruct the male children of French, Dutch and English parents. The subjects were reading, writing, English, Latin and Greek. Sup-

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port of school by taxation. This act was in force until 1709.

1732. "An Act to encourage a public school in the City of New York for teaching Latin, Greek and Mathematics." During nearly quarter of a century prior to 1732, instruction was carried on by private institutions. By the act of 1732 the first Latin school under the English was a free school supported by the income from licenses issued to hawkers and peddlers; supervised by the justices of the supreme court, the rector of Trinity Church and the city aldermen. Twenty free scholarships were offered. This act was effective seven years. In 1840 the Latin school closed and education again passed to private schools.

1704 to 1775. The Society for the Propagation of the Gospel controlled a large part of elementary education of the English in the respective villages. First school in Rye in 1704 and more than sixty other schools were organized during this period. The schools were distributed over the territory including Albany.

1746. "An Act for raising the sum of £2250 by a public lottery for this colony, for the advancement of learning and toward the founding of a college within the same." This was the origin to the movement which led to King's College.

1754. Charter from King George II establishing King's College, which became Columbia University. A grammar school was maintained in connection with the college and instruction in both the grammar school and the college was continued until the Revolution.

1767. Medical department added to King's College.

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Under New York State

Education was not considered a state function in the early days of the colony. As in England and in New England, education depended upon private organization.

1784. Regents of the University of the State of New York. In January, 1784, the message of Governor George Clinton urged immediate attention to education. The result was the revival of interest in King's College, which had been discontinued as a result of the Revolution. The Board of Regents was the Board of Trustees in control of King's College, which was revived and renamed Columbia, and that institution was the core of an educational system including schools and colleges in the state. Three years of attention to King's College left the other institutions without any development.

1787. "An Act to institute a University within this state, and for other purposes." All prior acts were repealed. Columbia College was made independent under a Board of Trustees, but the institution was still considered a part of the University of the State of New York. The Board of Regents of twenty-one members was given full power over "all the colleges, academies and schools which are or may be established in this state."

1787. The first two academies, Erasmus Hall and Clinton Academy, chartered.

An act of 1787 provided for secondary and higher education, but not for the elementary schools. From time to time during ten years the regents directed the attention of the legislature to this difficulty, but not

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until 1795 did the legislature enact measures for the organization of the lower schools, and then that organization was made without the authority of the regents.

1795. The first general school law enacted by New York State. It was an experiment to be tested during five years only. It provided for an annual appropriation of £20,000 "for the purpose of encouraging and maintaining schools in the several cities and towns in this state, in which the children shall be instructed in the English language, or be taught English grammar, arithmetic, mathematics, and such other branches of knowledge as are most useful and necessary to complete a good English education." The act provided for distribution of money, town commissioners and district trustees. The teachers had to be certified by town commissioners and here, therefore, was the beginning of certification of teachers in this state. The law lapsed by limitation in 1800 and the common schools were not again organized until 1812.

1799. Four successive lotteries to raise \$100,000, \$12,500 to be distributed by the Regents among the academies and the remainder to be placed in the treasury for the use of the common schools. In 1801 another lottery to raise \$100,000, one-half of which was for the common schools.

1801. Common school fund for permanent use established by sale of public lands prescribed by act of 1786.

1802. United States Military Academy at West Point.

1805. The Public School Society of the City of New York chartered to establish free schools in the city "for the education of such poor children as do not belong to or are not provided for by any religious society." This

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Society began to receive aid from the school fund in 1812, was aided by city tax in 1831, and continued efficient service until 1853, having educated more than 600,000 children.

1812. The Common School System. By act of the legislature, towns were divided into school districts, town school commissioners elected, district trustees elected, school money distributed according to population in towns and counties, and according to number of school children in the districts. Each district required to contribute as much money as it received from the state, and all state and local money must be used for teachers' salaries. This system of common schools was placed under a new official known as Superintendent of Common Schools, not under the Board of Regents. This act of 1812 was responsible for the dual system of supervision in this state, a system which continued until 1904.

1813. Gideon Hawley appointed Superintendent of Common Schools.

1817. New York Academy of Science founded.

Monitorial teaching introduced by Lancaster. Older pupils, called monitors, assisted in teaching. In 1805, the monitorial or Lancasterian method introduced into New York City. Lancaster, himself an English school-master, came to New York in 1818, and aided in establishing schools in New York, Brooklyn and Philadelphia. The services of this system were:

1. The masses of the people became accustomed to schools.
2. The people became accustomed to support the schools.
3. Education was considered a function of the state.

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4. A better system of grading. The subjects were arithmetic, spelling and reading, and pupils were promoted by subjects.

5. Better organization and better discipline.

The defects of the system were:

a. The work was too formal.

b. Superficial instruction.

c. Discipline too rigid.

d. Too much memory work.

1818. State library established.

1821. Gideon Hawley, Superintendent of Common Schools, removed and office abolished. Secretary of State acted as superintendent from 1821 to 1854.

1823. Brooklyn Academy of Arts and Science founded.

1825. Rensselaer Polytechnic Institute founded.

1830. State convention of teachers at Utica.

1834. First teachers' training classes established, one in each of the eight judicial districts of the state. Academies appointed to give professional instruction, and the first class opened in 1835. This was the first public provision for professional training of teachers in the United States. Appropriation of \$500 for books and apparatus and \$400 for an instructor was made for each senatorial district. Such support withdrawn after ten years.

1836. State museum established.

1837. United States Deposit fund. In 1837 New York received \$4,014,520.71 from the United States Treasury as the state's share of the surplus revenue of 1836. \$110,000 was appropriated immediately for the common schools; \$28,000 was to be used by the regents

to aid academies; and the balance used to be added to the school fund.

1838. District school libraries started. Movement influenced by James Wadsworth (1768 to 1844), Geneseo. He was a faithful promoter of the common school. Distributed many copies of Hall's *Lectures* and Cousin's *Report on European Schools*.

1839. County supervision. County boards of visitors without salaries. As a result of their supervision, the law of 1841 provided for Deputy Secretary of State for schools and deputy superintendent of common schools for each county, the latter to be appointed by the supervisors of the county. The deputy superintendents of the counties were empowered to examine and certificate teachers and to have general supervision of all the schools in the county, subject to the state rules and regulations.

1843. Town commissioners and inspectors replaced by town superintendents of schools. The name of deputy superintendent of county changed to county superintendent of schools. The office of county superintendent was abolished after 1847. First Teachers' Institute, Ithaca, under Supt. J. S. Denman.

1844. First Normal School, Albany; David P. Gage, Principal. Mr. Page (1810 to 1848) was a teacher in New England and a lecturer on education. Associated with Horace Mann in developing school spirit and good schools. Wrote *Theory and Practice of Teaching*.

1845. State Teachers' Association.

1853. First compulsory school law passed. Vagrant children 5 to 14 years of age could be taken before a magistrate and their parents compelled to agree in writ-

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ing to send them to school four months each year until the children were fourteen years old.

1853. Union free school law passed. Any district or union of districts could provide a free school, support it by taxation, and establish secondary departments. The elementary schools were under the supervision of state, county and local authorities, but the academic departments were under the Regents. The difficulty over this dual supervision showed the need of unification.

1854. Office of State Superintendent of Education restored.

Victor M. Rice, first Superintendent, 1854.

Abraham B. Weaver, 1874.

Neil Gilmore, 1876.

A. S. Draper, 1886.

James F. Crooker, 1892.

Charles R. Skinner, 1895.

1856. Office of school commissioner established.

1863. Oswego Normal School opened. Edward A. Sheldon (1823 to 1897), principal. Exponent of Pestalozzianism; author of *Object Lessons*.

1866. Cortland Normal School opened. James H. Hoose, principal.

1. Principal Cortland Normal School (1869-1891).
2. Adaptation of Pestalozzi's principles especially in primary work.
3. Professor of Philosophy and Education, University of Southern California.
4. Noted lecturer, organizer, disciplinarian. Compare Arnold.
5. Wrote *On the Province of Methods of Teaching*.

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1866. Normal Schools at Brockport, Fredonia and Potsdam.

1867. All State schools free; public support. Normal Schools at Buffalo and Geneseo.

1874. Compulsory Education Law enacted. Age limits, eight and fourteen years.

1885. Normal School at New Paltz.

1887. Normal School at Oneonta. Uniform system of examining teachers adopted by the State Superintendent. Optional until 1894 and then made mandatory.

1889. Legislature changed corporate name of Board of Regents of the State of New York to University of State of New York. Normal School at Plattsburg.

School year increased from 28 weeks to 32 weeks.

Supervision of teachers' training classes in high schools and academies transferred from Regents to Superintendent of Public Instruction.

1892. Old district library law revised and districts required to duplicate state grants.

1894. Compulsory education law fixing school age at 7 to 14 years, and also 14 to 16 years for all who are not regularly employed.

County institutes changed to district institutes under commissioner.

1896. Consolidation of school districts permitted; city institutes and state summer institutes established.

1900. New uniform regulations for teachers' certificates. All certificates based upon questions used for first grade certificate.

1904. Unification. Board of Regents and Depart-

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ment of Public consolidated. New office of Commissioner of Education, Andrew S. Draper in charge.

Teachers' Information Bureau established in the State Department.

1910. Laws and regulations governing Education Department made effective by simplification, definite responsibility assigned respectively to Board of Regents and Commissioner of Education.

1910. Office of school commissioner abolished and district superintendents substituted. The change effective January 1, 1912.

1911. Teachers' retirement fund law.

School bond issues permitted by court, and a state advisory board permitted to encourage agricultural education and country life advancement.

1913. School law.

Chap. 292, page 5. Establishes five state scholarships annually in each of 150 assembly districts of state. Holder of scholarship entitled to \$100 for each year in attendance at an approved college during four years. Awarded in order of merit.

Chap. 129, page 9. Consolidation of school districts by vote of electors of districts to be consolidated. Applied to both common and union free school districts.

Chap. 176, page 14. Establishment and maintenance of temporary schools outside of cities and union free school districts, in camps, etc., by district superintendent, subject to approval of commissioner of education. Quota \$125. Cost and expenses paid by state or municipality and not by district.

Chap. 440, page 16. Annual school meeting in union

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free school districts of 300 or more children may be held on first Tuesday in August at 7.30 p. m.

Chap. 221, page 18. Acquisition of site for play grounds, athletic center and social center purposes, etc., and for the giving instruction in agriculture, and also extending the use of school buildings for library purposes, social or civic meetings, etc.

Chap. 511, page 24. Extending number of school weeks from 32 to 36 (180 days). The term in common school districts to begin first Tuesday in September. Six days may be allowed for conferences with compensation.

Sec. 3, page 24. Child between 8 and 14 residing elsewhere than in city or school district of 5,000 population, and employing a superintendent of schools, shall attend upon instruction during entire time school is in session. Between 14 and 16, attend if not employed.

Sec. 1100, page 25. The word "teacher" includes teachers, principals and superintendents when referring to "teachers' retirement fund."

Sec. 1108, page 25. Teacher to contribute 1 per centum of salary annually to teachers' retirement fund. Amount due fund to be deducted from each warrant or order. Counties and cities in which provision is already made for pensions are excepted.

Chap. 627, page 27. Medical inspection of all pupils in public schools. Pupils to furnish health certificates.

Chap. 747, page 32. General industrial, trade, agricultural, part-time or continuation schools, etc., and evening vocational schools may be established in cities and union free school districts. State will pay two-thirds of salary paid to teacher.

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Chap. 748, page 36. Compulsory school attendance between 14 and 16 in part-time or continuation schools evenings for not less than 6 hours each week for not less than 16 weeks in one year.

Chap. 101, page 39. School record certificate. Attendance not less than 130 days, read and write English language, instruction in six required subjects, completed first six years' elementary school work. Date, birth and residence of child and name of child's parents, guardians or custodians.

Chap. 175, page 44. A blind or a deaf person in attendance at a college, university, technical or professional school shall be paid \$300 per annum to employ persons to read or to aid such student in receiving instruction.

Chap. 424, page 46. Division of Public Records and the Division of History in the Education Department created.

1914. School law.

Chap. 154, page 6. Authorizes a district superintendent to alter the boundaries of any school district within his jurisdiction, with consent of trustees.

Chap. 101, page 6. Two-thirds of qualified electors of each of two or more districts in which there shall be less than 15 electors, or, if there be 15 or more, ten of such electors shall sign a request for a meeting to consolidate. Trustees to call meeting.

Chap. 55, page 8. Commissioner of Education authorized to lay out in any territory, exclusive of a city, school districts conveniently located for attendance of scholars and of suitable size for establishment of "Central Rural Schools" to give instruction usually given

in common schools and at high schools, including instruction in agriculture. Any central district shall have same powers now conferred upon union free school districts. State aid. Transportation of scholars.

Chap. 216, page 12. Districts may vote tax not exceeding \$25 in any one year for the purchase of maps, globes, reproductions of standard works of art, blackboards, and other school apparatus and for the purchase of text-books and other school necessities for the use of poor scholars of the district.

Trustees may expend \$25 for articles mentioned above, or for conducting athletic playgrounds and social center activities, in one year, without a vote of the district.

Chap. 44, page 18. Establishment of State Teachers' Retirement Fund.

Sec. 1108, page 19. All teachers to contribute 1 per centum of the salary. District superintendents to contribute 1 per centum of salary. Teachers' contract. All school districts and cities shall contribute an amount equal to that contributed by the teachers, to be deducted from the public moneys.

Sec. 1109, p. 22. Retirement of teachers. A teacher who has taught 25 years, of which period at least the last 15 years in this state, shall, upon his retirement be entitled to an annuity of a sum equal to one-half of the average annual salary for the period of five years prior to retirement. No annuity to exceed \$600. (2) A teacher who has taught 15 years, at least 9 in this state, and who is either physically or mentally incapable of teaching, may be retired, and be entitled to an annuity of as many twenty-fifths of the full annuity for 25 years

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as said teacher has taught. (3) Retirement may be made on the request of the teacher or of the board of education in a city or union free school district. Request for retirement made to State Teachers' Retirement Fund Board, Albany, N. Y.

Sec. 1109 a. A teacher is not entitled to an annuity unless he has contributed to retirement fund an amount equal to at least 50 per centum of his annuity. He may become an annuitant by making cash payment which when added to his previous contributions will equal 50 per centum of his annuity.

Chap. 21, p. 28. Upon obtaining a permit and badge a male child over 12 years, between the close of school and 6.30 p. m., and a male child over 14, between 5.30 and 8.00 a. m., may be employed to carry and distribute newspapers.

Chap. 318, p. 30. Physicians, teachers and others to report in writing to the health officer the name and address of any person who appears to be suffering from tuberculosis.

454. Sources of support of education.

1. The common school fund. Act of 1805 made use of 500,000 acres of unappropriated land in this state. Approximate value, \$4,000,000; annual income, about \$170,000.
2. United States Deposit fund. In 1836, under President Jackson, the surplus in the United States treasury was distributed among the states. This state received four million dollars.
3. The Free School Fund. Secured by state taxes: First levy in 1851.

4. Gospel and School Lands Fund. In 1784 three hundred acres of unappropriated lands in each township were set apart for the use of a minister of the gospel, and 690 acres for the public schools. An act of 1786 provided that these lots should contain 640 acres, and an act of 1789, 250 acres each. These lots have since been rented or sold and the proceeds used for the benefit of the public schools. In 1786 unappropriated lands of the state were sold by the Board of Commissioners of the Land Office and the proceeds used for a literature fund. By various subsequent acts, the revenue derived from the sale of lands and from the United States Deposit Fund in 1836 has been added to this fund. About a quarter of a million dollars from the literature fund has been distributed by the Regents for the maintenance of schools.

455. Means for professional training of teachers.

1. Normal schools and college.

State Normal College at Albany.

Brockport	New Paltz
Buffalo	Oneonta
Cortland	Oswego
Fredonia	Plattsburg
Geneseo	Potsdam

2. Pedagogical departments in colleges and universities.
3. Teachers' training classes.
4. Summer training schools.

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456. Colleges and universities.

Name	Location	Opened	Control	For
Columbia University.....	New York City..	1754	Nonsectarian	Both Sexes
Union University.....	Schenectady....	1795	Nonsectarian	Men
Hamilton College.....	Clinton.....	1812	Nonsectarian	Men
Colgate University.....	Hamilton.....	1819	Nonsectarian	Men
Hobart College.....	Geneva.....	1822	Nonsectarian	Men
Rensselaer Polytechnic In- stitute.....	Troy.....	1824	Nonsectarian	Men
New York University.....	New York City..	1832	Nonsectarian	Both Sexes
Alfred University.....	Alfred.....	1836	Nonsectarian	Both Sexes
Fordham University.....	New York City..	1841	R. C.	Men
St. Francis Xavier College..	New York City..	1847	R. C.	Men
College of the City of New York.....	New York City..	1849	City	Men
University of Rochester...	Rochester.....	1850	Baptist	Both Sexes
Polytechnic Institute.....	Brooklyn.....	1854	Nonsectarian	Men
Elmira College.....	Elmira.....	1855	Presbyterian	Women
Niagara University.....	Niagara.....	1856	R. C.	Men
St. Lawrence University...	Canton.....	1858	Univ.	Both Sexes
St. Francis College.....	Brooklyn.....	1859	R. C.	Men
St. Bonaventure's College..	St. Bonaventure.	1859	R. C.	Men
St. Stephen's College.....	Annandale.....	1860	P. E.	Men
Manhattan College.....	New York City..	1863	R. C.	Men
Vassar College.....	Poughkeepsie..	1865	Nonsectarian	Women
Wells College.....	Aurora.....	1868	Nonsectarian	Women
Cornell University.....	Ithaca.....	1868	Nonsectarian	Both Sexes
Canisius College.....	Buffalo.....	1870	R. C.	Men
Syracuse University.....	Syracuse.....	1871	Methodist	Both Sexes
Barnard College.....	New York City..	1889	Nonsectarian	Women
Keuka College.....	Keuka Park....	1890	Free Baptist	Both Sexes
Adelphi College.....	Brooklyn.....	1896	Nonsectarian	Both Sexes
Clarkson School of Tech- nology.....	Potsdam.....	1896	Nonsectarian	Men
College of New Rochelle...	New Rochelle...	1904	R. C.	Women
College of Mount St. Vin- cent.....	Mt. St. Vincent.	1910	R. C.	Women

CHAPTER XXVIII

EUROPEAN SCHOOL SYSTEMS

I. Germany

457. Organization.

1. Each German state independent. Minister of Public Instruction over all. The Prussian school system is among the best in the world.
2. Three characteristics—state control, compulsory, universal.

458. Attendance.

1. Compulsory, 6-14, every school day.
2. Parents may be fined for absence of children.
3. Six days a week for forty-two weeks. Hours, 8-11 and 2-4; Wednesday and Saturday afternoons free.

459. Schools.

1. Kindergartens.
2. Public elementary schools (Volksschulen).
3. Secondary schools.
 - a. Gymnasium. Classical school leading to university. Course, 9 years.
 - b. Realgymnasium. Combination of classical and scientific, known as Latin-scientific. Course, 9 years.

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- c. Oberrealschule. Course of 9 years in subjects not considered classical.
- d. Realschule. Modern languages, sciences, mathematics and other subjects in distinction to those in classical schools. Course, 6 years.
- e. Modern language school for girls. Course, 9 years.
- f. Classical school for girls. Course, 5 to 6 years.
- 4. Normal schools and elementary school seminaries to prepare for elementary school teaching; gymnasial seminaries and university seminaries to prepare for secondary teaching and higher teaching.
- 5. Continuation schools for instruction in trades, agriculture and other lines of industrial life.

460. Support.

State and local taxes, endowments.

461. Teachers.

- 1. Normal graduates for common schools.
- 2. University men for higher work.
- 3. Temporary appointment for 3 years.
- 4. Life tenure after probation.
- 5. Increasing salaries; pensions.

II. *France*

462. Organization.

- 1. Minister of education.
- 2. Divisions and subdivisions, each under officer and council.

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463. Attendance.

Compulsory, 6-13.

464. Schools.

1. Infant or mother school, 2-6.
2. Lower primary, 6-13.
3. Higher primary.
4. High schools.
5. Normal schools, higher and lower.

465. Support.

State and local. All are free.

466. Teachers.

Nearly all normal graduates.

467. Summary.

1. Excellent system.
2. Professionally trained teachers.
3. Compulsory attendance.

III. England

468. Organization.

1. Public education law in 1870.
2. Education Department established in 1900.

469. Attendance.

Compulsory between 5 and 14 years of age.

470. Schools.

1. Infant schools, 3 to 7.

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2. Elementary schools, above 7 years. Classed as free schools, but not entirely so. Church schools known as voluntary schools and supported by subscriptions or vested funds. Board schools supervised by local boards and supported by state grants and local taxation.
3. Technical schools to prepare for vocational or industrial service. Conducted by Science and Art Department, by cities, by colleges, by guilds or private associations.
4. Public and private high schools.
5. Teachers' training colleges. There are seventeen colleges for men, twenty-five for women, and one for both sexes.
6. Colleges and universities.

471. Support.

State and local taxes, tuition, endowments, private subscription.

472. Teachers.

Monitors, as under Bell and Lancaster, begin teaching, and later take professional training; salaries fair; no pension.

IV. Other Countries

473. Attendance.

Compulsory except in Russia.

CHAPTER XXXIX

PEDAGOGICAL TRAINING OF TEACHERS

474. Formative stage.

Uniform development of the professional training of teachers cannot be shown, but the trend can be indicated by leading events. Students should observe that this department of educational effort is still in the formative stage.

475. Jesuits (1540).

Members of the order were carefully trained for teaching. The training included theory supplemented by teaching under supervision.

476. Christian Brothers.

First normal school for members of the order was opened at Rheims in 1685. Called Seminary for Schoolmasters. Other normal schools included schools of practice as well as departments of theory.

477. Francke (1692 to 1707).

The Institutions at Halle included a pedagogium, or school for the training of prospective teachers.

478. Monitorial system.

A system in which pupils are employed as assistants in teaching. Associated with Andrew Bell and Joseph Lancaster.

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Andrew Bell (1753 to 1832), born in Scotland, educated at University of St. Andrew, tutored in Virginia, chaplain and superintendent of Military Male Orphan Asylum in Madras, India. He learned the monitorial system from Hindu teachers and immediately (1791) put it into practice. Principal application by pupil-teachers was in writing on tables of sand. Bell developed the system in England and introduced it into Ireland and Canada.

Joseph Lancaster (1778 to 1838) was an exponent of the monitorial system in England, South America and United States. He used sand tables and introduced wall charts for reading. He advocated small classes, training of teachers by observation and practice, and management under the maxim, "Let every child at every moment have something to do and a motive for doing it."

While the professional training of teachers under the monitorial system was inadequate, it was habituation under organized procedure.

479. Public opinion.

National ideas produced a type for consideration in France, Germany and Austria. The actual opening of normal schools directed public attention to the necessity of having trained teachers.

480. Influence of writings.

The literature of modern education furnished definite ideals for rejection, modification or acceptance. Comenius produced books on theory of teaching, methods of teaching, and school organization. Rousseau, Pestalozzi, Froebel and Rosmini contributed to new concep-

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tions of education by theory, applications in teaching, and psychological classification.

Mann, Page and Barnard made definite advancement in organization in America by combining principles of education, methods of teaching, school administration, and public enlightenment by means of extensive writings.

481. Germany.

1735. Frederick William of Prussia established first state seminary at Stettin.

1738. University of Göttingen opened pedagogical seminary. Similar plan soon adapted by other universities.

1748. Hecker's Teachers' Seminary in Berlin.

1763. State teachers' examinations in some subjects. In a period of thirty years fourteen pedagogical seminaries were established. They were distributed over nearly all the states and supported wholly or in part by the respective states.

1807. Law requiring state examination teachers.

1809. Herbart at University of Königsberg instituted scientific study of education resulting in psychology of education. Stimulus to other institutions.

1810. Full control of examination of teachers. State authority substituted for local authority.

1831. Normal schools established.

1874. First state examination for women teachers.

1890. Training course lengthened one year for training prior to the first year of experience in teaching.

1901. Graduates of secondary schools granted unrestricted admission to teachers' examinations.

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482. **France.**

1794. Law providing for first normal school at Paris.

1808. Normal school for teachers of secondary schools.

1814. During the next fifteen years twelve normal schools for teachers of elementary schools.

1833. Every department was required to have a normal school by itself or in union with one or more other departments. This requirement resulted in the opening of forty-seven primary normal schools. During three years following 1860 seven more normal schools were established.

1867. A period of reorganization. Courses of study revised and enlarged, the study of agriculture being required; salaries increased and graded.

1880. First higher normal schools to train girls for teaching in secondary schools. This was followed by the establishment of two normal schools for the use respectively of men and women preparing to teach the higher primary schools.

1886. Two normal schools required for every department, one for men and the other for women.

1889. Law requiring all teachers to be lay teachers.

1903. The Higher Normal School affiliated with University of Paris. Degree at graduation valid for teaching in secondary schools.

483. **Austria.**

1771. Normal school having practise department to supplement theory. Type similar to American normal schools.

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484. Great Britain.

1581. Mulcaster advocated departments of pedagogy in universities.

Monitorial systems of Lancaster and Bell early in nineteenth century. Theory fundamentally the same in both systems. The older and brighter boys were trained to become teachers. Lancaster had the support of the Quakers and Bell had the support of the Church of England.

1833. Government grants for education. The sum of £10,000 was voted for the erection of model schools in 1835, but the money was not used for that purpose until 1839.

Pupil-teacher system introduced about 1840 by Kay Shuttleworth from Holland. Similar to monitorial system, but the pupil-teacher was apprenticed for five years to a head teacher. The pupil-teacher received a small salary. Special attention was given to professional training, while academic instruction was reserved for the training college, which was entered at the close of the period of apprenticeship. In 1846 the Queen's Scholarships were granted to help support pupil-teachers in the training college.

1874. Pupil-teacher center system. Introduced to assure better academic preparation. Age of pupil-teachers raised from thirteen to fourteen in 1878 and later to fifteen and sixteen. Apprenticeship period diminished from five years to two years.

1890. Day training colleges. Pedagogical training in connection with university organization. The latest development is organization of day training colleges under control of city or county authority.

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The time in the training college is one, two, three or four years.

1905. Student-teacher system. Secondary education first, then one year of practice teaching in elementary work under supervision, and then the training college.

485. United States.

Five stages are found.

1. The academy as a training school.
2. The normal schools.
3. City training schools.
4. High school normal training classes.
5. Departments of pedagogy in colleges and universities.

1. Training Classes in Academies

1756. The Academy and Charitable School of Philadelphia was proposed in 1743 and organized in 1756 under the influence of Benjamin Franklin. The aim was "that others of the lesser sort might be trained as teachers." Most of the training was in subject-matter rather than in theory of teaching.

Phillips Andover Academy in Massachusetts sought to prepare teachers for the common schools about the middle of the nineteenth century.

There was rivalry between the academies and the monitorial high schools in New York State when sentiment favored the professional training of teachers. The academies won because they had had state support since 1813. In 1834 courses of instruction were organized. It is said that the law of 1834 was the first in United States for training of teachers for the common schools

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2. *The Normal Schools*

1845. First normal school in New York State at Albany under Principal David P. Page.

Eminent educators had written in favor of normal school training. Among them were William E. Russell in 1823 and Professor Kingsley of Yale in the same year; Walter R. Johnson of Pennsylvania and Thomas H. Gallaudet in 1825.

1823. Samuel R. Hall opened a private school for the training of teachers in Concord, Vermont, and the work was continued into 1830. In 1829 Hall's *Lectures on School Keeping* were published and widely circulated.

In 1830 Mr. Hall continued his work in Andover, Mass., and from 1837 to 1840 in Plymouth.

1826. Neef opened training school in New Harmony, Indiana.

1827. James G. Carter, known as a "Father of Normal Schools," opened a training school for teachers in Lancaster, Mass. Elected to the legislature in 1835, Mr. Carter urged the establishment of training schools for teachers. He was aided by Charles Brooks, who had written on the Prussian educational system, and also by Edmund Dwight, who contributed \$10,000 toward the project.

1839. First public normal school in America was opened July 3 at Lexington, Mass., for women, under the principalship of Rev. Cyrus Pierce. This school afterwards became the Framingham Normal School. Another school was opened at Barre for both sexes and later became Westfield Normal School.

Barnard's work in Connecticut kept the subject be-

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fore the people twenty-five years and ended in the establishment of the New Britain Normal School in 1849.

1848. Philadelphia Normal School.

1850. Ypsilanti Normal School.

1855. Trenton Normal School.

3. City Training Schools

Private normal schools developed and increased rapidly. During the second quarter of the nineteenth century the city training schools, a type of smaller normal school and the direct outgrowth of the monitorial school plan of Lancaster, were organized. Such schools established in Philadelphia in 1848 became the Girls' Normal School; in 1852 Boston; in 1867 New York City, the school later becoming Normal College for Girls; in 1861 Oswego City Training School, which became the Oswego Normal School in 1866.

4. High School Normal Training Classes

Intended to give limited professional training rather than to serve as substitutes for normal schools. Graduates fitted for rural schools. Many of the graduates pursued subsequent courses in normal school. This type of training is the outgrowth of the original work of the academies in preparing teachers for service. Similar schools are found in Wisconsin, Nebraska, Indiana, and Virginia.

5. Departments of Pedagogy in Colleges and Universities

Began with an agitation for the establishment of such departments in Amherst College in 1826. Actual open-

ing of department in Washington College in 1831 and in any New York university in 1832. Plan has developed into effectual service in all parts of the United States.

In this connection, New York State Normal College at Albany and Teachers College, connected with Columbia, deserve special mention as distinctive institutions. The former was organized as a college in 1891; the latter, in 1888.

CHAPTER XXX

ECLECTIC CONCEPTION OF EDUCATION

486. Using inheritances.

The opening paragraphs of this book direct attention to composite or eclectic definitions of education. Now we have clearer reasons for seeing why modern education is making use of the desirable elements in all prior work in education.

The eclectic notion of education embodies three large conceptions formulated during the period of modern education. The psychological conception is represented by Herbart, Pestalozzi and Froebel; the scientific conception, by Herbert Spencer, Thomas Huxley and other scientists; the sociological conception, by John Dewey and nearly all the other recognized educators. The three conceptions are the cumulative result of development through all the periods in the history of education.

The comprehensive scope of aim and the composite nature of effort can be more easily grasped when we consider how the specific needs of modern life are met. School administration recognizes the inheritances of the culture products of civilization—scientific, literary, esthetic, institutional, industrial and religious; makes use of the five factors in education—home, school,

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church, state and vocation; and seeks to aid the unfortunate and the defective—the blind, the lame, the abnormal, the orphan, and those in penal institutions. Industrial education, a new phase of school organization, illustrates the breadth of theory and practice. Agriculture, commerce, manual training, technical trades and vocational aptitudes are thoroughly covered. The cooperation of agencies is made efficient as shown in the following outline, and the belief that education is a life process is evidenced by extension work in evening schools, vacation schools, free lectures, and organizations for community welfare.

487. Cooperation of factors in education.

1. The school and the home.
 - a.* Visits by teachers and nurses.
 - b.* Parents' meetings.
 - c.* Improvement societies.
 - d.* School exhibitions.
 - e.* Rhetorical exercises.
 - f.* Pupils' report cards.
 - g.* Graduation exercises.
2. The school and the church.—Lines of effort parallel with those in the school and the home.
3. The school and the state.
 - a.* Obedience to law.
 - b.* Respect for authority.
 - c.* Desire to cooperate.
4. The school and the library.
 - a.* Literature and character.
 - b.* Desire for self-improvement.
 - c.* Substitution in habit: reading vs. idleness.

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5. The school and the museum.
 - a.* Visualization.
 - b.* Recorded observation, a means of causing reactions. Notes on observations put into composition form.
 - c.* Collecting impulse stimulated and guided.
 - d.* Esthetic influence.
6. The school and the newspaper.
 - a.* The support of the press needed.
 - b.* Current history a vitalizing force.
 - c.* School papers as means of expression.
7. The school and industry.
 - a.* Excursions to factories.
 - b.* Study of commercial geography.
 - c.* Arithmetic applied to lumbering, excavating, milk depots, etc.
 - d.* Correlation with life. Study of materials used in food, clothing, houses, manufactures in general.

CHAPTER XXXI

CHRONOLOGICAL TABLE

488. Correlation.

This table may be used to associate history of education with the leading events in general history.

Chronological Table

1000-900 (?) B. C. Settlement of coast of Asia Minor by Æolians, Ionians and Dorians.

1000 (?) B. C. Homer and his successors.

820 (?) B. C. Constitution and laws of Lycurgus of Sparta.

776. First Olympiad. Coroibus the first victor in Olympian games.

594 B. C. Solon, lawgiver of Athens.

490 B. C. Battle of Marathon.

444-429 B. C. Athens under administration of Pericles.

The Age of Pericles was 465-429 B. C.

525 to 406 B. C. The tragic dramatists: Æschylus, Sophocles, Euripides.

470 to 390 B. C. The noted historians: Herodotus, Xenophon, Thucydides.

469 to 399 B. C. Socrates.

427 to 348 B. C. Plato.

384 to 322 B. C. Aristotle.

CHRONOLOGICAL TABLE

- 336-323 B. C. Alexander subdued Greece.
146 B. C. Greece subject to Rome.
106 to 43 B. C. Cicero interpreted Greek philosophy
for Romans.
70 to 18 B. C. The Roman poets: Vergil, Horace, Ovid.
35 to 95 A. D. Quintilian: *Institutes of Oratory*.
50 to 138. Plutarch. *Parallel Lives*.
181. Catechetical School of Pantænus, Alexandria.
Middle of third century. Paul, the first Egyptian her-
mit.
320. Monastic Community of Pachomius.
Fourth century. Cathedral Schools with Trivium.
404. Cassian's Monastery at Marseilles.
476. Fall of Rome.
529. Benedict's Monastery at Monte Casino.
563. St. Columba settled on Iona, near Scotland.
714. Arab conquest of Spain.
Eighth century. Chrodegang's organization of Ca-
thedral Schools.
782. Alcuin summoned to Charlemagne's court.
Ninth and tenth centuries. Mohammedan schools in
Spain.
1079 to 1142. Abélard at University of Paris.
1200 to 1386. Universities of Paris, Naples, Vienna,
Heidelberg.
1221 to 1274. Thomas Aquinas.
1214 to 1294. Roger Bacon.
1265 to 1375. Dante, Petrarch, Boccaccio.
1383. Gerhard Groot founded Brethren of the Com-
mon Life.
1395. Chrysoloras began to teach Greek at Florence.
1453. Constantinople captured by Turks.

CHRONOLOGICAL TABLE

- 1467 to 1536. Erasmus: Grammars, Dictionaries, and Translations from Latin and Greek; first printed Greek New Testament.
- About 1470. Wessel, Agricola, and Reuchlin studied Greek at Paris.
- 1483 to 1553. Rabelais and realism.
1492. Grocyn began to teach Greek at Oxford.
1506. Reuchlin published Hebrew Grammar.
1512. Dean Colet founded St. Paul's Grammar School.
1516. Erasmus published Greek New Testament.
1528. Melancthon's Saxony School Plan.
1538. Sturm's Strasburg Gymnasium.
1540. Loyola founded Society of Jesus.
1570. Ascham's *Scholemaster* published.
- 1580 and 1588. Montaigne's *Essays* published.
- 1580 to 1605. Francis Bacon: *Inductive Philosophy*.
1619. Ratich opened school at Anhalt-Köthen and, in 1620, formulated maxims for teaching languages.
- 1627 to 1657. Books by Comenius.
1643. Port Royalists opened the Little Schools.
1679. La Salle opened a school for boys at Rheims.
1683. La Salle founded Brothers of the Christian Schools.
1687. Fénelon published *The Education of Girls*.
1692. Locke published *Thoughts on Education*.
1695. Francke began his Institutions at Halle.
1707. Francke formed teachers' seminary.
1701. Yale University founded.
1724. Russian Imperial Academy of Sciences founded.
- 1726-28. Rollin's *Treatise on Studies* published.
1735. Teachers' Seminary founded at Stettin.

CHRONOLOGICAL TABLE

1738. Pedagogical Seminary established in Göttingen University.
1746. Princeton University founded.
1747. Hecker's Real School opened in Berlin.
1748. Hecker's Teachers' Seminary opened.
1749. University of Pennsylvania founded.
1754. Columbia University founded.
1762. Rousseau's *Émile* published.
- 1770 to 1841. Jacotot.
1771. Normal School established in Vienna.
1774. Philanthropin opened by Basedow at Dessau.
1775. American Revolution began.
- 1776 to 1841. Herbart.
- 1782 to 1852. Froebel: Kindergarten.
1785. United States Government set aside public land for schools.
1787. United States Government set aside public land for universities.
1789. French Revolution begun.
1795. New York appropriated one hundred thousand dollars to aid schools.
- 1795 to 1842. Thomas Arnold: Rugby.
- 1796 to 1859. Horace Mann.
1798. Lancaster opened a monitorial school in London.
1802. West Point Military Academy established.
1805. Pestalozzi's school at Yverdon opened.
1806. University of France established.
1808. Emma Hart's Seminary for ladies at Middlebury, Vermont, opened.
1809. Herbart made professor at Königsberg.
- 1811 to 1900. Henry Barnard.
1812. State superintendency established in New York.

CHRONOLOGICAL TABLE

- 1812-15. War between United States and England.
1815. Napoleonic wars ended.
1815. Connecticut asylum for deaf and dumb established.
1820 to 1903. Herbert Spencer.
1821. First real high school in the United States opened in Boston.
1824. Elective system begun at Harvard.
1824. Rensselaer technical school established.
1826. Neef's training school in Indiana.
1831. Education nationalized in Ireland.
1832. Massachusetts institution for the blind opened.
1833. Oberlin College opened as a coeducational institution.
1834. State free-school law enacted in Pennsylvania.
1836. Mount Holyoke College founded.
1837. Kindergarten opened at Blankenburg by Froebel.
1839. Normal school opened at Lexington, Massachusetts.
1848 to 1913. Andrew S. Draper.
1850. S. S. Green made professor of didactics in Brown University.
1855. First Kindergarten opened in the United States by Mrs. Schurz.
1860. Publication of Spencer's *Education*.
1862. National land appropriations made for agricultural colleges.
1867. United States Bureau of Education established.
1870. Education nationalized in England.
1873. University extension movement begun.
1877. Education made compulsory in Italy.
1882. Education made compulsory in France.

CHRONOLOGICAL TABLE

- 1888. Teachers College, Columbia University.
- 1890. School of Pedagogy, New York University.
- 1899. National Board of Education established in England.
- 1901. School of Education, Chicago University.
- 1903. Higher Normal School in France.

CHAPTER XXXII

PRONUNCIATION OF NAMES.—REFERENCES FOR COLLATERAL STUDY

489. Pronunciation.

A

ABELARD, äb'e-lard.
 AGRICOLA, ä-grīk'o-la.
 ALCUIN, ä'l'kwīn.
 ANSELM, än'selm.
 AQUINAS, a-kwī'nas.
 ARISTOTLE, är'is-tot-l.
 ASCHAM, äs'kam.
 AUGUSTINE, aw'gus-tīn.

B

BASEDOW, bä'zeh-do.
 BASIL, bā'sil.
 BOCCACCIO, bok-kät'cho.
 BUDDHA, bōōd'da.
 BURGDORF, böōrg'dörf.

C

CELESTINE, sël'is-tīn.
 CHARLEMAGNE, shar'le-
 man.

CHRYSOSTOM, krīs'os-tom
 or krīs-os'tom.
 CICERO, cīç'e-ro.
 CLEMENT, klēm'ent.
 COLLOQUY, col'lo-quy.
 COMENIUS, ko-mā'nee-ōōs.
 CONFUCIUS, kon-fū'she-ūs.
 CONSTANTINE, kōn'stan-tīn.

D

DANTE, dän'te.
 DEMOSTHENES, de-mos'the-
 neez.
 DESCARTES, dā''kärt'.
 DESSAU, dēs'sa.
 DEVENTER, dā'vēn-ter.
 DUNS SCOTUS, dūnz sko'-
 tūs.

E

ÉMILE, ā-mēl'.
 ERASMUS, e-rāz'mūs.
 ERIGENA, e-rīg'e-na.

PRONUNCIATION OF NAMES

F

FÉNELON, fā''nēh-lōn'.

FICHTE, fik'teh.

FRANCKE, frän'keh.

FROEBEL, frö'bel.

G

GARGANTUA, gār-gän'tū-a.

H

HALLE, hāl'le.

HERODOTUS, he-röd'o-tus.

J

JACOTOT, zäk'ko'to'.

JEROME, je-rōm'.

K

KEILHAU, kēl'ä.

KÖNIGSBERG, kö'nīgs-bērg.

L

LAMY, lä'me.

LaSALLE, lä-säl'.

LITERATOR, lit'er-ā-tor.

LITERATUS, lit-e-rā'tus.

LOYOLA, loi-o'lä.

LYCURGUS, li-kûr'gus.

M

MAGNUS, mäg'nōös.

MELANCHTHON, mē-länk'-
thon.

MEÑCIUS, men'shī-us.

MONTAIGNE, mōn'tān''.

N

NEUHOF, noi'hof.

NICALE, nē'kol.

O

ORIGEN, ör'ī-jen.

P

PANTAGRUEL, pän-täg'ru-ël.

PERICLES, pēr'ī-kleez.

PESTALOZZI, pēs-tä-löt'see.

PETRARCH, pee'trark.

PLINY, plīn'ī.

PRAGUE, präg or präg.

PTOLEMY, töl'e-mī.

PYTHAGORAS, pī-thäg'o-ras.

R

RABELAIS, rä'blā''.

RAMUS, rä'mōös.

RENAISSANCE, rē-nās'sans.

REUCHLIN, roik'lin.

ROUSSEAU, roo''sō'.

PRONUNCIATION OF NAMES

S	TROTZENDORF, tröt'sen- dorf.	tröt'sen- dorf.
SOCRATES, sők'ra-teez.		
STRABO, strā'bo.		V
STURM, stöorm or stürm.	VIVES, vee'ves.	
	YVERDON, e'ver'don".	
T		
TELEMACHUS, tē-lēm'ā-kūs.		Z
TERTULLIAN, ter-tül'i-an.	ZOROASTER, zor-o-ās'ter.	

490. References.

Young students are bewildered by the number of references assigned in the history of education. The theory of wide reading is good enough, but is it not better education to get a foundation from one book that presents the matter in a satisfactory way? Pass from clear percepts to clear concepts and then get as much breadth as the individual can sustain, but do not scatter the thoughts by research before there is an apperceptive basis formed. These references are therefore suggested according to types of students.

1. For beginners and others who need to know the facts, Kemp's *History of Education* is adequate and stimulating. The author's style is pleasing, related facts are expressed instead of being assumed as known, and balanced credit is distributed among Jews, Catholics and Protestants. J. B. Lippincott Company, Philadelphia.

Seeley's *History of Education*, latest edition. American Book Company.

Bardeen's *Dictionary of Educational Biography* gives in terse form the facts so often needed to supple-

REFERENCES

ment ordinary text-books. C. W. Bardeen, Syracuse, N. Y.

2. For other students. Cubberly's *Syllabus of Lectures on the History of Education* has references to suit all needs. Macmillan Company, New York.

Monroe, Paul. *A Brief Course in the History of Education*.

Monroe, Paul. *A Text-Book in the History of Education*. Complete for general reference. Macmillan Company.

Cyclopedia of Education, edited by Paul Monroe. 5 volumes. Macmillan Company.

Davidson, Thomas. *A History of Education*. Charles Scribner's Sons.

Graves, F. P. *A History of Education during the Middle Ages and the Transition to Modern Times*. Macmillan Company.

Schwickerath, R. *Jesuit Education*. B. Herder, St. Louis.

Quick, Robert H. *Educational Reformers*.

Williams, S. G. *History of Modern Education*. C. W. Bardeen.

Pen Wen Kuo. *The Chinese System of Public Education*. Teachers College, New York.

Turner, William. *History of Philosophy*. Ginn & Company.

3. For those who desire topical outlines.

Aspinwall, William B. *Outlines of the History of Education*. Macmillan Company.

Tucker, Louise Emery. *Visualized History of Education*. Hinds, Noble & Eldredge, New York.

Both of these books, issued respectively in 1912 and

REFERENCES

1914, follow closely the plan of the first edition of McEvoy's *Epitome*, 1907. Aspinwall has references by pages and Tucker has graphic charts.

4. For correlated study. The mastery of history of education apart from psychological principles and applied methods of teaching is impossible. The mind is not developed by vertical sections. Here, therefore, is a list of books that can assure any faithful student a safe, broad and invigorating view of the best in modern education.

James. *Talks to Teachers*. Henry Holt & Co.

Halleck. *Psychology and Psychic Culture*. American Book Company.

Horne. *The Philosophy of Education*. Macmillan Company.

Bagley. *Educative Process*. Macmillan Company.

Spencer. *Education*. C. W. Bardeen.

Eliot. *Education for Efficiency*. Houghton Mifflin Company.

Blow, Susan E. *Symbolic Education*.

Klapper. *Principles of Educational Practice*. D. Appleton & Company.

McEvoy. *Methods in Education*.

McEvoy. *Science of Education*.

5. For general reading.

Myers. *General History*. Ginn & Company.

Adams. *Civilization During the Middle Ages*. Charles Scribner's Sons.

Symonds. *Renaissance in Italy—The Revival of Learning*. Henry Holt & Co.

Dexter. *History of Education in the United States*. Macmillan Company.

CHAPTER XXXIII

NEW YORK STATE SYLLABUS OF HISTORY OF EDUCATION

491. The suggestions issued by the Education Department are helpful guides to the essentials. The work presented here is a compilation from various pamphlets and circulars published during the last ten years.

492. The syllabus is intended to give the outline upon which the work in this subject will be based and not to present methods of teaching it.

It is expected, however, that this subject will be taught in a manner to inspire interest therein for its own sake, to arouse a professional spirit, to bring the class into intimate acquaintance and sympathy with the great educators of the past, to secure an intelligent appreciation of current pedagogical discussions, and to beget serious reflection upon the real nature of education and the true aim of the educator.

A complete history of education would include a record of all influences, human and otherwise, which have affected mankind at all times and in all places. In its narrower and usual sense it concerns itself with conscious, premeditated efforts to realize some ideal of perfection in the individual. The chief ends sought in the study of the subject are breadth of view, steadiness of purpose, that inspiration which comes from the study

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of the masters, and a somewhat connected account of the development of present educational ideals and the circumstances which have furthered or hindered this development.

493. The evolution of education in primitive society.

Education in relation to civilization. The history of education and universal history. Education through the experiences of life. The transmission of experiences in primitive society. Institutions as the embodiment of customs and ideals. The basis and beginnings of instruction in the family. The domination of institutions in primitive society.

494. Oriental education.

Each nation has evolved a system of education in accordance with the dominant ideas of its civilization. The variety in systems and ideals mainly due to the relation of the social and individual factors to each other. The glaring contrast, in general, between oriental and occidental education as to the importance of the individual. Discussion of Chinese, Hindoo, Persian, Hebraic, and Egyptian education under the following heads:

1. Social organization.
2. Education as determined by social organization.
 - a. Aim.
 - b. Means.
 - c. Method.
 - d. Administration.
 - e. Results, social and individual.

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495. Greek education.

The social organization of the city-state and its influence in shaping education. Greek religion, art and national games. Aims in Greek education. Greek education in relation to Greek social organization. Sparta and Athens as types. The organization of the Athenian schools. Music and gymnastics. Tendency to individualism in Greek life and education. The new Greek education. The Sophists. Socrates, Plato and Aristotle. Philosophical schools and their permanent significance. Significance of the Alexandrian period. Education as the essence of Greek life. Emergence of the ideal of a liberal education.

496. Ideals and methods of Roman education.

Comparison of the Roman national ideal with that of Greece. Ideals of Roman education as expressed in Roman social organization. Roman education and the characteristic Roman virtues. Conception of the practical value of education. Periods of Roman education. Hellenic influence. Organization of the Roman schools. The Roman *Humanitas*. Educational theorists. Cicero and Quintilian.

497. Early Christian education.

To 529 A. D., the date of the abolition of pagan schools by Justinian.

The educational implications of the doctrine of the Great Teacher. His method. The first Christian schools. The church fathers. The conflict with the pagan learning. The tendency to asceticism. General

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results of the interaction of Greek, Roman and Christian influences on education.

1. Pre-Christian education inefficient.

No nation rises above its idea of a God.

Greeks and Romans had lost their traditional faith and regarded intellectual and esthetic culture as the highest aim of education.

The equality of man practically unknown to the Roman empire.

2. Christian education a new force reconstructive in character.

Aim: a perfect life.

Teachings: the immortality of the soul;

The brotherhood of man;

The worth of the individual.

Condition: that conduced to the rapid spread of Christianity.

3. Christian and pagan ideals.

Christian education subordinated the intellectual to the moral and religious.

Reasons for the devotion of the early Christians to their ideals.

Christian vs. Greek solution of the problem of the individual and society as shown in the attitude towards poverty, wealth, social position, amusements, occupations, moral standards, marriage, women, children, slaves, the state, foreign nations.

4. Decadence of the Romano-Hellenic schools and the supremacy of Christian education consummated by the Edict of Justinian.

Total rejection of pagan ideals not possible.

Culture represented by classical literature.

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The church antagonistic to scientific investigation.
Effect of hostility against pagan learning upon the condition of education for a thousand years.

5. First Christian schools.

Nature and object of instruction.

Methods largely based upon the work of Christ as a teacher.

Characteristics of these methods.

Catechetical and Catechuminal schools.

Reasons for their organization.

Class of students.

Subjects taught.

Schools at Alexandria, Cæsarea, Rome, Carthage.

Alexandria a Christian university A. D. 389.

Christian fathers and striking characteristics of their works and teachings: Justin Martyr, Clement of Alexandria, Origen, St. Basel, Chrysostom, Tertullian, St. Jerome, St. Augustine.

498. Education during the Middle Ages.

From 529 A. D. to the revival of learning.

The decline of schools. Monasticism and the seven liberal arts. Episcopal and parochial schools. The Carolingian revival and the work of Alcuin. Alfred the Great. Education of the knight. The Crusades as an educational factor. Saracenic education. The schoolmen and the rise of the universities. Mysticism. The burgher schools. The church as the instrument of education.

1. Monastic education.

Monasticism resulting from the ascetic spirit that followed the supremacy of Christianity.

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Types of life represented: Cenobites, Anchorites.

The monastery described.

Names and location of the most noted monasteries.

Monastic orders: Benedictines, Dominicans, Cistercians, Franciscans.

Rules of the orders, poverty, labor.

Provisions for study.

Subjects taught.

Use of pagan literature.

The seven liberal arts; trivium, quadrivium.

Transcribing manuscripts.

Collecting libraries.

Special work of the Irish monks.

The revival of learning under Charles the Great and scope of his efforts.

The palace and castle schools.

Subjects taught.

Use of the vernaculars.

Alcuin, Rabanus Maurus, Joannes Scotus Erigena.

The origin of mysticism, its teachings.

Relapse of the 10th and 11th centuries.

2. Saracenic learning.

Mohammedan migrations and conquests.

Intellectual advancement as shown by the patronage given to learning.

Schools and libraries.

Translations.

Architecture, the Alhambra a type.

Work in mathematics, astronomy, physics, chemistry, medicine and surgery.

Contributions to the Christian world.

Decline.

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3. Forms of education from the 10th to the 13th centuries inclusive.

Feudalism the social basis of medieval education.

The institution described.

Causes contributing to its growth.

Relations of feudalism to church and state.

Forms of medieval education.

Chivalry, a new educational force, an outgrowth of feudalism and the influence of the church; its special value to a crude age; its code; inadequacy of the schools to teach its code; training of the page, the squire, the knight; results of chivalry; its decline and end.

Monastic and cathedral schools train for clerical duties.

Industrial education: the apprentice system, the gild.

The destruction of feudalism.

The Crusades, their origin and purpose; reasons for their humanizing and educative effect.

The rise of free cities.

Growths of municipal, parish and endowed grammar schools.

The Brotherhood of the Common Life.

4. Scholasticism.

Medieval science.

A system of intellectual discipline.

Its purpose to harmonize ancient philosophy, especially that of Aristotle, with the doctrines of Christianity.

Reasons for the growth of the scientific spirit.

Great schoolmen: Abélard, Roger Bacon.

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Limits of scholasticism.

Its decline and downfall.

Its service in awakening the minds of men and so accelerating the growth of the universities.

5. The rise of the universities.

Causes contributing to their growth.

The evolution of the first universities at Salerno, Bologna and Paris.

Special work of each.

How the universities were supported and governed.

Conflict with municipal authorities.

Special privileges.

Temporary nature of their location and its effect.

Courses of study.

Discipline.

Methods of teaching.

Graduation and degrees.

Customs, habits and morals of students.

Oxford and Cambridge.

Revival of study of Greek language.

Effect of invention of printing upon the methods and content of instruction.

Influence as a public force.

A power for freedom in an age of oppression.

Interference in affairs of church and state.

Effect of interchange of students.

Preparation of leaders for the revival of learning known as the Renaissance.

6. Summary.

In leaving the work outlined in this syllabus certain important facts should be emphasized because of

their bearing upon the Renaissance and all later educational development. Special attention is therefore due the lasting and broadening effects of the gradual and general growth of Christianity throughout Europe, the enlightening influence of the Crusades, the breaking down of feudalism, the rise of great municipalities with their wealth and refinement, the rise of the modern nations, the effect of the inventions of the mariner's compass and the art of printing, the growth of the vernaculars to the status of written languages; and the gradual improvement in methods of travel, communication, manufacture and art, especially architecture.

499. The Renaissance and education.

Courses of revival. Humanism in Italy: Dante, Petrarch and Boccaccio. Humanism beyond the Alps: Agricola, Reuchlin and Erasmus. Da Feltra, Colet, Ascham, Melanchthon and Sturm. Effect of the Renaissance on education.

1. Introductory.

Renaissance.

Its approximate date.

Its derivation.

Its broad meaning—revival of classical learning (literature and art).

Humanism.

Its meaning.

2. State of learning at the close of the Dark Ages.

Saracenic influence.

Greek and mathematics in German and Ital-

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ian universities (extent and manner of introduction).

Scientific investigation; Roger Bacon.

Subtle disputations by the schoolmen.

Christian ideals and the dignity of the soul.

3. Causes leading to the Renaissance; illustration and discussion of each cause.

The "Deventer" influence.

The breaking up of the Greek empire.

The gradual transference of scholars and manuscripts.

The crusades.

The development of vernacular literature.

Spirit of life in the great cities.

Strengthening of the government of Central Europe.

The establishment of universities.

Numerous church councils.

The invention of the art of printing.

Mutual acquaintances of different governments through diplomacy.

Interest in the study of Greek literature.

Geographical discoveries.

The invention of the mariner's compass.

The breaking down of feudalism.

The invention of gunpowder.

The progress of civilization of the Teutonic race.

4. Humanism in Italy.

Pioneers—Dante, Boccaccio, Petrarch.

Intellectual activity of Florence.

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Influence of kinship of the Italians with noted men of the past.

The changed meaning of the monuments of the civilization of ancient Rome.

Search for old manuscripts; the founding of libraries; the Aldine Press.

Patrons of the new learning.

Italian painting; the four masters; examples of their work.

5. Humanism in Germany.

Leaders—Agricola, Reuchlin, Erasmus.

Its field compared with that in Italy.

Attitude toward the existing state of the church.

“The Letters of Obscure Men.”

Protestant high schools.

The Jesuit schools: aims, methods, discipline and courses of study.

The gymnasium.

6. Humanism in England.

Reasons for its fullest development here.

New learning in Oxford.

Erasmus in Cambridge.

Change in the curriculum of the universities.

Growth of public schools.

Dramatic literature.

Education of women.

7. Humanism in America.

a. In the Colonial period.

b. At the present time.

8. Results of humanistic education.

- a. Good—(1) General; (2) on the individual.
- b. Bad; how in each of the countries.

500. The Reformation and the Counter-Reformation.

Educational significance of the Reformation. Luther, Melancthon and Knox. Sturm, "the Cicero of Germany." Trotzendorf, the monitorial system and self-government of pupils. Neander. Origin and constitution of the Jesuits. Merits and limitations.

The teaching societies. The Jesuits. The Oratorians. The Port Royalists. The Brethren of the Christian Schools. The Pietists.

501. Rise of realism and science in education.

The humanistic and the realistic tendencies in education. Rise of realism and utilitarianism in education as opposed to humanism and culture. Verbal realism, Rabelais and Milton. Social realism, Montaigne. Bacon and the inductive study of nature. Comenius. The educational theories of Comenius. The rise of the conception of method in instruction. The place of Comenius in the history of education.

502. Development of modern educational theory.

Rabelais and *realen*. Ascham and method in language teaching. Montaigne and the relative values of character, wisdom and knowledge. Mulcaster and education versus learning.

The innovators: Bacon and the *Novum Organum*.

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Ratke's visions and experiments. Milton's *Tractate*. Comenius and universal popular education. Rollin's *Trait des études*. Locke and the education of a gentleman. Fénelon and his theory of female education.

The New Education: Rousseau and education according to nature. Basedow and his *Philanthropinum*. Pestalozzi and harmonious development. Froebel and the philosophy of education. Herbart and the science of education. Jacotot the methodizer. Spencer and education for complete living.

Introductory

1. Locke—founder of naturalistic movement; placed the child instead of the branches of instruction in the forefront of pedagogic consideration.

Doctrine: All knowledge comes through the senses and experience and should lead through discipline to truth.

Influence: Strengthened the doctrines of "formal discipline" and that training is more important than knowledge.

2. Rousseau—worked out Locke's theories with "*Émile*"; inspired Pestalozzi to apply naturalistic theories, with emphasis on moral development, to the masses; strengthened the idea of education as development and growth and thus introduced the psychologic tendency.

Principles: Education is the free development of the child according to his own nature through direct experience.

Education should be negative, withholding di-

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rect instruction of truth, but guarding against error.

Interest should be the sole guide to intellectual training.

Moral training should be by natural consequences.

3. Basedow and the Philanthropinists—the first to give expression to naturalistic views.

Principles: Children should be treated as children, not as adults.

Languages should be taught by conversational methods, and the vernacular should be the chief subject-matter of instruction.

Physical exercises and games and the learning of a handicraft should find a place in the child's education.

Instruction should be based upon realities, not upon words.

General characteristics of the psychologic movement.

1. Sympathy for and knowledge of childhood and child mind.
2. New attention paid to method based upon a rational psychology.
3. Education seen to mean a development, a natural process of growth from within.
4. More attention given to elementary education and to education for the masses.

Chief exponents of the movement.

1. *Pestalozzi.* "Before Pestalozzi, popular education did not exist. . . . For him was reserved the fame of having not only restored to credit the processes of the method of sense-perception, already known

and applied, but of having realized the social importance of the education of the people."

a. Biography—his life and literary activity.

b. Doctrines: "Education is a social duty; aim of education is to prepare men to be what they will be in society."

"The aim of all education and instruction is and can be no other than the harmonious development of the powers and faculties of human nature," hence education and instruction should be based upon a knowledge of the laws of the development of the mind.

c. Principles of method: Sense-perception is the absolute foundation of all knowledge.

Language must be linked with observation—number, form, language are the means of instruction.

Teaching must begin with the simplest elements and proceed gradually.

The time for learning is not the time for judgment.

The chief end of elementary teaching is not to impart knowledge, but to develop and increase the powers of intelligence.

The teacher should respect the individuality of the pupil.

Discipline must be based upon and ruled by love.

d. Influence in Prussia.

Influence in United States.

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- (1) First school and teacher—Neef in Philadelphia.
 - (2) In New England—Russell, Olcott, Mason, Barnard, Page.
 - (3) In New York—Sheldon and the Oswego Normal; the influence of the Oswego movement upon Victor M. Rice.
 - (4) In St. Louis—William T. Harris.
2. *Herbart*—recognizes the need of psychology as a basis for instruction and develops a psychology that can be used in the practical problems of teaching; formulates the first system of education that unifies education from kindergarten to university and makes pedagogy a science.
- a. Biography—his life and literary activity.
 - b. Doctrines: The entire content of consciousness is due to experiences and therefore can be modified by education.
The immediate aim of education is a balanced, many-sided interest leading to knowledge and sympathy.
The ultimate aim is to determine the will toward virtue—moral life is the end of all education; but such life depends upon the nature of the world organized in the mind and soul and can be furthered by education.
 - c. Basis of his psychology: the doctrine of apperception. “Sense-perceptions are the elements of mental life and their combinations, permutations and interactions

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cause all the rest of the manifold forms of consciousness." The mind develops through its own experiences through the acquisitions of presentations or sense-perceptions; education or instruction, however, controls these presentations, hence the importance of the influence and guidance of the teacher in presenting presentations.

- d. Contrast between Pestalozzi and Herbart—
perception versus apperception.

Pestalozzi emphasizes the use of the senses, but lays little stress on previous knowledge; Herbart's chief object is to secure the *reaction* of the mind upon what is offered to the senses.

- e. Principles and questions of method: Methods of instruction must harmonize with the psychologic development of the child.

The meaning of the following terms:

Five formal steps of method.

Doctrine of interest.

Culture-epoch theory.

Theories of correlation, coordination, concentration.

Relative value of studies.

- f. Influence in Germany and in the United States.

3. *Froebel*—crystallizes theories into practical methods, especially with reference to the young child; recognizes the value of self-activity and the power

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of play to awaken and to strengthen the intelligence and the soul as well as the body.

a. Biography—his life and literary activity.

b. Contrast between Herbart and Froebel:

Herbart emphasizes the importance of the teacher and the method of instruction, Froebel the importance of the child, as the factor in the educative process. To Froebel, education is conscious evolution; the child must be self-active in the acquisition and assimilation as well as in the expression of knowledge.

c. Principles: "In all things there lives and reigns an eternal law." The child must be brought into harmony with this law of unity. This is accomplished by continuity in education and by self-activity. Continuity: "education should be one connected whole and should advance with an orderly, continuous growth." Self-activity: "activity determined by one's own motives, arising out of one's own interests and sustained by one's own power."

(1) Forms of activity: play, manual activities, expression in gesture, song, language, construction.

(2) Development of method expounded in kindergarten gifts, occupations, mother-songs and plays.

d. Influence.

(1) In Germany.

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- (2) In United States—Elizabeth Peabody, Mrs. Carl Schurz, Dr. William T. Harris, Susan Blow.

503. Development of public education in the United States.

The more important educational activities in colonial America. Character and influence of the academy in American education. The secondary school. Horace Mann and the common school revival. The normal school system. European influences in American education. The educational situation.

504. Development of school systems.

The principal steps in the development of the school systems of Germany, France, England and the United States. The present administration of these systems, the school attendance, the various grades of schools, the manner in which the schools are supported, the curriculums, and the provision for the training of teachers. In the study of the development of the educational systems in the United States stress should be laid on the work of the common schools and the influence of such men as Horace Mann, Henry Barnard, Francis W. Parker, and W. T. Harris.

505. Education in New York State.

Stages in the development of elementary, secondary and higher education. Professional, technical, commercial, industrial, and other branches of education. The present administration of education in New York State.

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506. **Modern tendencies in education.**

The child study movement—societies for the study of education. The problem of the curriculum. Night and vacation schools—centralization of schools. Parent-teacher circles. Physical education and improvements in buildings and surroundings, etc.

Medieval guilds and the liberation of the laborer. Effects of the Industrial Revolution. The social problem presented by the industrial and democratic type of society. Origin and growth of industrial education. Industrial training in Germany, France and England. Education demanded for individual and social efficiency in America.

CHAPTER XXXIV

GENERAL SUMMARY

507. Purpose.

This chapter is intended to help students organize the principal facts into periods or other unities which clearly indicate development in history and principles of education.

Oriental Education

Purposeful effort to secure specific ends but not harmonious development.

Classical Education

508. Greece.

Sparta. Physical training of boys to prepare for service to the state; of girls to prepare to bring forth vigorous sons. Health, obedience, loyalty, courage.

Athens. Culture an ideal; literary, esthetic, physical training to produce harmonious or balanced training of all human powers. "The true, the beautiful, the good." Music and gymnastics for elementary training, philosophy and vocational drill for higher preparation.

Socrates. Method of teaching by questioning to develop valid concepts; expose error, lead to truth; in-

GENERAL SUMMARY

terest, self-activity, reasoning and judgment. The method was inductive.

Plato. A pupil of Socrates; school called Academy; *Laws* and *Republic*; three classes of people, education adapted by epochs; lecture method; psychology in his theory of ideas.

Aristotle. One of Plato's pupils; school called Lyceum; *Politics* and *Ethics*; inductive and deductive methods, with preference for latter.

509. Rome.

Efficiency an ideal; institutional; organization; oratory; practical, obedient citizens. Learn to do by doing.

Cicero: orator; mild treatment of pupils.

Seneca: philosopher; Nero.

Quintilian: teacher of rhetoric; *Institutes of Oratory*; vs. corporal punishment; public schools best, object method for letters, graphic method for writing, i. e., tracing; learn foreign language first; literary education.

The Christian Era

510. Period 1 to 1500.

1. Discipline of mind and body an ideal; aimed to save the soul; religious. Discipline comes from persistent exercise; formal culture.

2. Ideal pedagogy of The Great Teacher. The Christian Fathers helped formulate material for instruction, interpreted Christian doctrines for subsequent use, and served as the transition from classical period to monastic period.

3. Monks—Benedictines, Franciscans, Dominicans, Cistercians.

GENERAL SUMMARY

Course of study, Seven Liberal Arts, in use 1000 years.

Trivium: Grammar, rhetoric, logic.

Quadrivium: Arithmetic, geometry, music, astronomy.

4. Charlemagne. 9th century. Founded schools; best teachers; Alcuin secured as teacher; Charlemagne himself a student; German for Lord's Prayer and Apostles' Creed; national system of universal, compulsory education.

Alfred the Great. England. Education for higher classes—language, customs and laws.

5. Feudalism. 1000-1200. Three periods of knight's education: home, page, esquire; seven perfections; woman exalted.

Mohammedans. Sciences: chemistry originated; universities after elementary schools; Bagdad and Cordova.

6. Crusades, universities, scholasticism, 1200-1500.

Religious aim, to rescue Jerusalem; mental awakening, interest, activity (compare preparation in formal steps); downfall of feudalism; brotherhood of man, inventions, discoveries, explorations, commerce.

7. Universities. Salerno, Bologna, Paris, Prague, Oxford, Cambridge, etc.

Faculties—law, medicine, philosophy, theology.

Abélard at Paris.

8. Scholasticism. 9th-15th centuries.

(a) Aim to reconcile philosophy and the Christian religion.

(b) Thomas Aquinas and Abélard.

(c) Methods—lecture, syllogism or deductive reasoning.

GENERAL SUMMARY

Modern Education

511. 16th Century. Renaissance. Realism.

The period of Charlemagne was the first renaissance; Scholasticism was second; and this period was the great renaissance, or the revival of learning. Discipline of intellect an ideal; formal discipline from study of classical Latin and Greek.

1. Humanism. Literary studies humanize, refine.

Dante: *Inferno, Divine Comedy*.

Erasmus: translator, printer; Greek testament.

Study Latin and Greek together.

2. Printing in fifteenth century was best stimulus to renaissance.

3. Reforms.

Luther, theory of education; primary schools; German language only; music; pedagogical training needed by all teachers; trades; national control.

Melanchthon, organizer; books on *Greek, Logic, Rhetoric, Hebrew*; Saxony School Plan, 3 grades, Latin the only language; founder of public school system. E. 128.

Sturm, successful organizer; Classical High School Course; Latin and Greek; double translation; Strasburg Gymnasium.

4. Jesuits, or counter-reformers.

Aims—to be the best teachers, preachers, confessors. Course of study—Ratio Studiorum, 1599.

Criticism: Most efficient system for three centuries.

Trained teachers; mild discipline; emulation.

5. Ascham. Queen Elizabeth; double translation. *Scholemaster*.

GENERAL SUMMARY

6. Rabelais. Realist: natural science. Concrete to abstract; known to related unknown; things before words. *Gargantua*, satire on scholastic education.
7. Montaigne. Use senses. Use science. No corporal punishment. Beauty and pleasure in school rooms. *Essays on Pedantry*.

512. 17th Century. Innovators.

Realism applied; new views.

1. Thirty Years' War (1618-1648) had depopulated Germany and set her back two hundred years in character, intelligence and morality.
2. Educators vs. humanistic studies; for real, practical work.
3. Principles of education:
 - a. Things before words.
 - b. Sense instruction.
 - c. Begin with mother tongue, French or German.
 - d. Latin or Greek for advanced work.
 - e. Physical training.
 - f. According to nature.
4. Comenius. Knowledge an ideal. Organization, methods, books.

School system; 4 periods of 6 years each.

Text-books: *Orbis Pictus*; *Gate of Tongues Unlocked*; *Great Didactic*.

Principles: Learn to do by doing; learn a language by use; nature is the basis of all learning. External physical nature the guide; analogy of preparing soil for crops.

5. Francis Bacon. Inductive philosophy and modern science. *Essays*; *Novum Organum*.

GENERAL SUMMARY

6. Locke.
Private schools for higher classes of people.
Learn Latin by conversation or interlinear translation.
Memory trained by short passages.
Interest and pleasure.
Leave to your children
 - a. virtue
 - b. prudence
 - c. good manners
 - d. instruction*Essays concerning Human Understanding.*
Thoughts on Education.
7. Milton. Very broad system of education. *Paradise Lost.*
8. Ratke or Ratich. Germany.
Natural method in mastery of language.
Double translation.
Uniformity in speech, etc.
9. Port Royalists of France.
Vs. Jesuits; more heart in religion. Object teaching. Phonetic spelling. *Text-books on Logic*, etc.
10. Pietists of Germany. Francke and Institutions at Halle.
Vs. Reformers; more piety in religion. Pedagogium, Real-gymnasium, orphan asylum, etc.; 3200 students in 1727. Real-school; modern languages, sciences, arts; vs. Classical Gymnasium.
11. Fénelon: Indirect instruction. *Education of Girls*, *Dialogues of the Dead.*
12. Christian Brothers. First normal school, Rheims, 1684. Primary schools. Simultaneous methods.

GENERAL SUMMARY

513. 18th Century. Naturalism.

Development an ideal. Realism continued. According to nature includes nature of child.

1. Rousseau. E. 178-191.

Émile: stages, course of study; attention to child study. According to nature, negative education, discipline of consequences or natural punishment.

2. Basedow. Philanthropin at Dessau. Purely secular education. Failure, but influenced Europe. *Elementary Book*.

514. 19th Century. Naturalism, science.

1. Pestalozzi. Percepts the basis of knowledge.

a. Naturalness in teaching and learning.

b. Love.

c. National system.

d. *Evening Hours of a Hermit*—educational maxims.

e. *Leonard and Gertrude*—nature of village life in Switzerland.

f. *How Gertrude Teaches Her Children*—his own principles.

2. Froebel. Kindergarten. Keilhau.

a. Harmonious training.

b. Self-activity.

c. Productiveness; occupations.

d. Play; social activity; religion.

e. *Songs for Mother and Nursery*.

f. *Education of Man*.

3. Herbart. Character an ideal. Concepts the basis of knowledge. Formal steps of instruction. Peda-

GENERAL SUMMARY

gogy made a science. Will in character. Interest.

4. Horace Mann: *Massachusetts Reports*, mild discipline; normal schools; American public school system.
5. David Page: Albany Normal; *Theory and Practice of Teaching*.
6. Barnard: *Connecticut Reports*.
7. Thomas Arnold: Rugby. Character in boys.
8. Jacotot: Repetition, "All can learn," "All can teach."
9. Spencer: Complete living; science; *Education*.

515. 20th Century. Eclectic view.

Combination of best features of former views.

Bagley's *The Educative Process*.

Butler's *The Meaning of Education*.

Dewey's *School and Society*.

Horne's *Philosophy of Education*.

James's *Talks to Teachers*.

McMurry's *Elementary School Standards*.

Perry's *The Management of a City School*.

516. Courses of study.

Indicate facts of time, nation, or men.

1. Music and Gymnastics.
2. Seven Liberal Arts.
3. Law, Medicine, Philosophy, Theology.
4. Humanism.
5. Classical High School Course.
6. Ratio Studiorum.
7. Eclectic courses.

GENERAL SUMMARY

517. Books.

Name, authors or books.

1. *Laws.*
2. *Republic.*
3. Plutarch.
4. Quintilian.
5. *Confessions.*
6. *Koran.*
7. Erasmus.
8. *Gargantua.*
9. *The Advancement of Learning.*
10. *Tractate on Education.*
11. Comenius.
12. Locke.
13. *Émile.*
14. *Elementary Book, or Elementarbuch, or Elementarwerk.*
15. Pestalozzi.
16. *Education of Man.*
17. *Education.*
18. *School and Society.*
19. *Educative Process.*
20. *The Meaning of Education.*

518. Schools, organizations, or institutions.

Associate essential facts.

1. Academy.
2. Lyceum.
3. Monasticism.
4. Bagdad and Cordova.
5. Christian universities.
6. Scholasticism.

GENERAL SUMMARY

7. Strasburg gymnasium.
8. Christian Brothers at Rheims.
9. Port Royal.
10. Halle.
11. Philanthropin or Philanthropinum at Dessau.
12. Yverdon.
13. Keilhau.
14. Rugby.
15. Common schools of United States.

519. Method of teaching.

Give name of method or tell name of user.

1. Socrates.
2. Aristotle.
3. Scholastics.
4. Double translation.
5. Prelection, repetition, disputation (Method of studying Latin in schools of Jesuits).
6. Inductive method.

520. Life virtues.

Associate nations or educators.

1. Obedience.
2. Respect.
3. Courtesy.
4. Silence.
5. Self-control.
6. Order or organization.
7. Accuracy.
8. Neatness.
9. Good posture.
10. Love.

CHAPTER XXXV

DRILL AND REVIEW

1. Define education.
2. What is the meaning of history?
3. Name seven ideals in the history of education.
Which one is the most comprehensive? Give reason for your choice.
4. Which form of education is priestly? ancestral? state? caste?
5. Describe Chinese competitive examinations.
6. Who was Confucius? Give one quotation from him.
7. Explain the philosophy of Zoroaster.
8. What nation originated geometry? Why?
9. Why were the Hindus an imaginative people?
10. Mention two virtues sought in each oriental nation.
11. Contrast the caste systems of India and Egypt.
12. What subjects were studied by (a) the Magi, (b) priests?
13. What advance in methods of teaching in Egypt?
14. Describe the Socratic method of teaching and discuss its application.
15. Define and illustrate (a) deductive method, (b) inductive method.
16. Mention three principles of pedagogy advocated by Aristotle.

DRILL AND REVIEW

17. Compare the first seven years of the Athenian child's life with those of the Spartan child; contrast their later education.
18. Describe the two great writings of Plato.
19. Why were Spartan women educated?
20. What educator made *harmony* his basis?
21. Mention three favorable points in Spartan education.
22. Mention five defects of Spartan education.
23. Who was the great lawgiver for (a) Athens, (b) Sparta?
24. Mention five points in which Grecian education excelled oriental education.
25. What were the duties of a pedagogue?
26. For what is Euclid noted? Pythagoras? Zoroaster?
27. What was the Lyceum? the Academy?
28. Name three Grecian books treating on education.
29. Who was the most learned Grecian?
30. Name the periods of education in Plato's scheme.
31. What important treatise did Aristotle write?
32. Who was the author of deductive logic?
33. Show how play was utilized in Grecian education.
34. Who taught Alexander the Great?
35. Athens sought to develop the true, the beautiful, and the good. What gain have we made in twenty-five hundred years?
"We have made but one great change, that of substituting material achievement for the esthetic expression of personality; and this is a change that is not an unmitigated blessing nor unqualified advance." (Monroe, page 59.)

DRILL AND REVIEW

36. Distinguish (a) palestra and (b) gymnasia.
The school of physical culture for youths in Greece was called a palestra; those for men were called gymnasia.
37. What did music include in Grecian education?
In general, all educative efforts presided over by the nine muses, as follows: Clio, the muse of history; Euterpe, of lyric poetry; Thalia, of comedy; Melpomene, of tragedy; Terpsichore, of choral dance; Erato, of amatory poetry; Polyhymnia, of rhetoric and eloquence; Urania, of astronomy; Calliope, of epic poetry.
38. Give three favorable criticisms of Roman education.
39. Who was the first teacher to hold an endowed chair in education?
40. Name the most eminent Roman philosopher.
41. What was the chief aim in Roman education?
42. Tell who wrote each of the following:
- a. *Talmud*.
 - b. *Iliad and Odyssey*.
 - c. *Institutes of Oratory*.
 - d. *Republic*.
 - e. *Latin Orations*.
 - f. *Vedas*.
 - g. *Laws*.
 - h. *Dualistic Philosophy*.
 - i. *Politics*.
 - j. *Parallel Lives*.
 - k. *Training of Children*.
 - l. *Deductive Logic*.
43. Give an account of the origin and the rise of the early Christian universities.

DRILL AND REVIEW

44. Describe the relation between the Church and the schools.
45. What did the Saracens do to foster learning?
46. Define scholasticism. Name three schoolmen.
47. Name three monastic orders. State four of their contributions to progress.
48. Name three noted books of this period, and the author of each.
49. Where were the first catechetical schools? What was their purpose? What was their method of teaching?
50. What two early Christian educators were opposed to pagan literature? Why? What ones favored the use of Latin and Greek classics?
51. Name the Seven Liberal Arts. Who made this course?
52. What is the Koran? Who compiled it?
53. Mention three of Charlemagne's reforms. What contributions to education did Alcuin make?
54. Who was Alfred the Great? What language did he aid in developing?
55. Name the seven perfections of a knight.
56. Describe the three periods in feudal education.
57. Define and illustrate syllogism. What educators used it? What is its value?
58. Why were the early Christians backward in intellectual development? Three reasons.
59. Explain the effects of the Crusades on education.
60. Locate (*a*) five Christian universities, (*b*) two Moslem universities.
61. What new studies in this period?

DRILL AND REVIEW

62. Status of woman?
63. Name two books written by St. Augustine.
64. What years are assigned to the Middle Ages?
65. What were the four departments of instruction in the universities?
66. Name authors:
 - a. *Letters on the Education of Girls.*
 - b. The Bible known as the *Latin Vulgate.*
 - c. *Confessions.*
 - d. *The City of God.*
 - e. *Education of the Clergy.*
 - f. *Translation of Bede's History of the English People.*
 - g. *Koran.*
 - h. *DeMagistro (Concerning the Teacher).*
 - i. *Summa Theologiæ.*
67. Considering this period from an educational point of view, is it rightly called the Dark Ages?
68. What does the word Renaissance suggest to you? How does the Great Renaissance differ from the two preceding ones?
69. Name three German representatives of the new learning.
70. What is the meaning of humanism? What were the humanities?
71. Was the education of women advanced much?
72. Describe the *Gargantua* of Rabelais.
73. Who was called the preceptor of Germany? (Melanchthon.)
74. Describe the Saxony School Plan. Why did it not succeed outside of rural schools and small village schools?

DRILL AND REVIEW

75. What was the attitude toward school discipline in the sixteenth century?
76. Who wrote (a) *Divine Comedy*, (b) *Pantagruel*, (c) *Essays on Pedantry*, (e) *Scholemaster*, (f) *Instruction of Children*?
77. What humanist was a noted translator, writer and publisher?
78. What two courses of study were organized in the sixteenth century? Which one has largely influenced English and American high school courses?
79. Give advice of Erasmus for (a) memory; (b) care of girls.
80. When and by whom was printing invented?
81. Enumerate the points of value of humanistic training.
 - a. Required decision in favor of the expression that was absolutely best. This required discrimination, mental acuteness, and scholarly tact.
 - b. It aimed at exactness in a degree more searching than either mathematics or science.
 - c. Such discipline, though small in extent, was direct preparation for mental experiences in life.
 - d. Humanistic scholarship did not exclude other subjects having correlated value.
82. State two defects of humanistic training.
 - a. Words were taught instead of things.
 - b. Formal side of language emphasized too much.
83. What is the meaning of the term Innovators?
84. Give five pedagogical principles of the Innovators.

DRILL AND REVIEW

85. Name three inventions or discoveries that tended to direct attention to practical *things*.
86. Describe the natural or conversational method of Ratke.
87. State three of Ratke's principles.
88. What is meant by the inductive method? Show that it deals with things rather than words.
89. Describe the school system planned by Comenius.
90. What did Comenius mean by according to nature? (See 301.)
91. Comenius would associate things and words. Show that he thus combined humanism and realism. (See 298 b.)
92. Criticize Milton's definition of education.
93. What subjects used by the Oratorians would class them as realists rather than humanists?
94. Name two contributions from the Port Royalists.
95. Define, illustrate, and defend indirect instruction as used by Fénelon.
96. Show three ways in which the Christian Brothers permanently aided elementary education.
97. Name three essential principles discussed by Locke.
98. Give Locke's opinion of (a) Latin, (b) music.
99. Outline Locke's suggestions on physical education.
100. What would Locke have parents leave to their children?
101. Show three views in which Locke followed Montaigne.
102. Name the authors:
 - a. *Novum Organum*.
 - b. *Orbis Pictus*.
 - c. *Paradise Lost*.

DRILL AND REVIEW

- d. Fables.*
- e. Great Didactic.*
- f. Essays.*
- g. Advancement of Learning.*
- h. Paradise Regained.*
- i. Port Royal Logic.*
- j. Telemachus.*
- k. Tractate on Education.*
- l. Conduct of Schools.*
- m. Essay concerning Human Understanding.*
- n. Gate of Tongues Unlocked.*
- o. Education of Girls.*
- p. Conversations on the Sciences.*
- q. Dialogues of the Dead.*
- r. Thoughts on Education.*

- 103. Why is Rousseau the representative educator of the eighteenth century?
- 104. What did Rousseau mean by according to nature?
- 105. Define pietism.
- 106. Describe the Institutions at Halle.
- 107. What educator is associated with university reforms?
- 108. What is meant by real schools?
- 109. What subjects were studied in the real schools?
- 110. Why did the Philanthropin fail?
- 111. Show that the principle of motor activity was known in Basedow's scheme.
- 112. State Kant's view in regard to training the will.
- 113. How many periods in Émile's education?
- 114. State clearly what was studied by Émile during each period.
- 115. Define and illustrate negative education.

DRILL AND REVIEW

116. What is the meaning of natural punishment?
State (a) favorable, (b) unfavorable use.
117. Give Rousseau's view of female education.
118. Name the author:
- a. *Confessions*.
 - b. *Elementary*.
 - c. *Émile*.
 - d. *Book of Methods*.
 - e. *Ancient History*.
 - f. *Philosophy*.
 - g. *Social Contract*.
 - h. *Treatise on Studies*.
119. Give a sketch of the life of Pestalozzi.
120. What is the source of information on Pestalozzi's views? (See 382.)
121. Show that Pestalozzi believed in education as development.
122. State three principles of teaching advocated by Pestalozzi.
123. Give an account of the origin of the kindergarten.
124. How did Froebel utilize self-activity?
125. How does the kindergarten satisfy the child's instinct of productiveness?
126. *The Education of Man*, *Thoughts on Education*, Spencer's *Education*, *Émile*, and Dewey's *School and Society* are considered epoch-making books in education. Give one leading thought from each book.
127. State three kindergarten principles that apply in all education.
128. Give a brief psychological justification of the kindergarten. (391.)

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129. What is Herbart's service to Pestalozzianism? (394.)
130. Show the succession from Locke to Herbart. (395.)
131. Herbart made character the aim of education, and he made will the means to character. Do you agree? Why?
132. Show exactly how Pestalozzi, Froebel and Herbart differ from one another. (400.)
133. What are the limitations upon repetition in learning? Which is ideal, quiet concentration or active repetition? Why?
134. State a paradox from Jacotot and disprove or defend it.
135. Give Spencer's definition of education, naming the five activities.
136. Criticize that definition.
137. In a course of study, would you favor sciences or languages, or both? Why?
138. Physics has both culture value and material value; Latin has only formal or culture value. Discuss this statement.
139. Explain discipline of consequences. Apply it to (a) laziness in school, (b) tardiness, (c) cheating.
140. How did Arnold develop reciprocal trust in school government?
141. What important treatise did Bain write? State one of his views.
142. Briefly outline the favorable features of European schools.
143. Summarize the contributions of Mann and Barnard.

DRILL AND REVIEW

144. What book was written by David P. Page?
145. Arrange in chronological order five courses of study that are combined in modern eclectic courses.
146. Make a list of ten books that have strongly influenced the history of education.
147. Give briefly the substance of one book that has helped you in the history of education.
148. Name five prominent educators living in America today.
149. Which one of the teaching congregations is prominent in elementary education at present?
150. Name three educational journals and briefly describe the nature of each.

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The figures refer to sections unless otherwise indicated.

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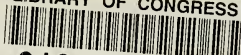
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